



TOWN *of* WAKE FOREST

Planning Board Meeting Agenda August 21, 2023 at 6:00 PM

Notice

In accordance with the requirements of Title II of the Americans with Disability Act of 1990 (ADA), the Town of Wake Forest will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities. For individuals with impaired hearing, special equipment is available for use during meetings in the Town Hall Board Chambers. Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of the Town of Wake Forest should contact the office of ADA Coordinator [Mickey Rochelle](#) at 919-435-9455 or Deputy Town Clerk [Ella Dowtin](#) at 919-435-9436 as soon as possible, but no later than 48 hours before the scheduled event.

Cable & Online Broadcast of Planning Board Meetings

All Planning Board meetings are broadcast live on [WFTV 10](#) beginning at 6:00 p.m. Meetings are also aired online on the [Public Meetings Portal](#) on the [Town of Wake Forest website](#). Archived meeting videos are also provided and available for one year after the original air date.

Meeting Agendas

[Planning Board](#) meeting agendas are typically available to be viewed and downloaded by noon on the Friday prior to the second Tuesday of each month. Citizens may also receive a copy of each month's agenda via email by enrolling in the Town's free [E-Notifier](#) subscription service.

Public Comment

Those wishing to speak must first register to speak no later than 3:00 p.m. the day of the meeting. The forms to register to speak and provide written comments are available at <https://www.wakeforestnc.gov/ph>.

At the appropriate time, the Planning Board Chair will acknowledge those persons who have registered to speak. They will be called upon in the order registered. Speakers will address the Board as a whole, from the podium at the front of the room, and begin their remarks by stating their name and address. At the end of public comment, the Chair may summarize the discussion from the public comment. While not required, the Chair may ask staff or the applicant to respond. Speakers

needing additional information or questions answered will be contacted by the Deputy Town Clerk and provided contact information for the appropriate staff person.

Unless otherwise indicated by the Chair, individual comments shall be limited to three minutes. Groups are encouraged to designate a lead speaker on their behalf, and when addressing the Board, the speaker must first identify the group they are representing and will be given no more than ten minutes to give comments. Once comments have been made, speakers cannot speak again, unless specifically called upon by the Chair. The Chair may, at his/her discretion, interrupt public comment and elect to continue it to another meeting due to, among other reasons, the lateness of the hour or to allow consideration of other items on the agenda.

When public comment sessions are continued from previous meetings, previous individuals that have spoken, either representing themselves or a group, cannot speak at a continued public comment session, unless specifically called upon by the Chair. Additionally, speakers cannot both represent themselves individually and speak on behalf of a group throughout public comment periods, even if held over multiple sessions.

1.Call to Order

2.Adoption of Agenda

3.Approval of Minutes

- 3.A. Approval of Minutes
[7-11-2023 Planning Board Minutes .pdf](#)

4.Presentations

- 4.A. Wake Forest Parks & Recreation Master Plan Update: Project Kick-Off Presentation

5.Old Business with Public Comment

6.Old Business

7.New Business with Public Comment

- 7.A. Consideration of LEGISLATIVE CASE RZ-23-01, 4Rivers - Wake Forest Self Storage, a conditional rezoning filed by Rob Caudle on behalf of Franklin Village, LLC, to rezone 2.64 acres located at 0 Friendship Chapel Road, being Wake County Tax PIN 1850066925, from General Residential 10 (GR10) to Highway Business Conditional District (HB-CD).

[RZ-23-01 Staff Report v1.pdf](#)

[Attachment A - Neighborhood Meeting Information.pdf](#)

[Attachment B - Application.pdf](#)

[Attachment C - Maps.pdf](#)

[Attachment D - Plan Consistency Analysis.pdf](#)

[Attachment E - Parking Generation Memorandum.pdf](#)

[Exhibit 1 - 4Rivers - Wake Forest Self Storage Master Plan.pdf](#)

7.B. Consideration of August 2023 Draft Wake Forest Public Transit Plan (CPA-23-02)

[CPA 23-02 Staff Report.pdf](#)

[Attachment A - Application.pdf](#)

[Exhibit 1 - Draft Wake Forest Public Transit Plan \(August 2023 Version\)](#)

8.New Business

9.Staff Comments

10.Planning Board Comments

11.Adjournment



Planning Board Agenda Item Report

Agenda Item No.: 2023-208-
Submitted by: Ella Dowtin
Submitting Department: Planning
Meeting Date: August 21, 2023

SUBJECT

Approval of Minutes

Recommendation:

Item Summary:

ATTACHMENTS

- [7-11-2023 Planning Board Minutes .pdf](#)



Wake Forest Planning Board Minutes

The Wake Forest Planning Board met on **Tuesday, July 11, 2023**, at **6:00 p.m.** in the Board Room at Wake Forest Town Hall, 301 S Brooks Street.

Planning Board Members present: Karin Kuropas, Michael Siderio, Michael Almquist, Michael Hickey, and Sheila Bishop

Planning Board Members absent: N/A

Staff Members present: Planning Director Courtney Tanner, Assistant Planning Director Jennifer Currin, Town Attorney Hassan Kingsberry, Senior Planner Timothy Richards, Planner II – Long Range Planning Emma Linn, and Deputy Town Clerk Ella Dowtin

1. Call to Order

Chair Kuropas called the meeting to order at 6:00 p.m.

2. Adoption of Agenda

ACTION:

Mover: Michael Almquist moved to adopt the agenda as presented.

Second: Michael Siderio.

Vote: Motion carried 5-0.

3. Approval of Minutes

ACTION:

Mover: Michael Hickey moved to approve May 9th and 24th, 2023; minutes as presented.

Second: Sheila Bishop.

Vote: Motion carried 5-0.

4. Presentations

Planning Director Courtney Tanner presented resigning Board Member Chris Joyner with a certificate of appreciation of service.

5. Old Business with Public Comment

No Old Business with Public Comment presented.

6. Old Business

No Old Business presented.

7. New Business with Public Comment

7.A. Consideration of LEGISLATIVE CASE RZ-22-08, Rogers Road Townhomes, a conditional rezoning filed by Kimley-Horn & Associates on behalf of M & EM CO LLC, to rezone 27.0 acres located at 0 Rogers Road, being Wake County Tax PIN(s) 1749786086, 1749870648, and 1749789397, from Wake County's Residential-30 (R-30) to General Residential 10 Conditional District (GR10-CD).

Senior Planner Tim Richards provided the staff report for case RZ-22-08, Rogers Road Townhomes.

Collin McGrath of Poyner Spruill Attorneys at Law, representing the developer Baker Residential, provided a presentation for the rezoning of Rogers Road Townhomes.

Public Comment

The following citizens presented and opposed the Rogers Road Townhomes conditional rezoning.

Lucille Dwyer – 1107 Golden Poppy Court - Wake Forest, NC 27587.

Jan Ellis – 114 Golden Poppy Court - Wake Forest, NC 27587.

Kenneth Christie – 1111 Golden Poppy Court - Wake Forest, NC 27587.

Richard Swatt – 1029 Prairie Aster Court - Wake Forest, NC 27587.

James Rogalski – 1037 Prairie Aster Court - Wake Forest, NC 27587.

Brian Assessor – 3821 Orange Cosmos Ave. - Wake Forest, NC 27587.

Claude Brasseale – 1113 Golden Poppy Court - Wake Forest, NC 27587.

Elaine Sheppard – 341 Simwood Ave. - Wake Forest, NC 27587.

Mark Smith – 1017 Prairie Aster Court - Wake Forest, NC 27587.

Brad Tuttle – 1009 Prairie Aster Court - Wake Forest, NC 27587.

Robert Pettyjohn – 3816 Rogers Rd. - Wake Forest, NC 27587.

Public comment session closed.

Discussion

The Planning Board discussed the objectives of case RZ 22-08 and received clarification from the builders and considered the citizens' concerns.

Michael Siderio asked the developer if they had considered single-family homes versus townhomes for this parcel of land. The developer, Mark Bowles of Baker Residential, responded yes; it was considered but they did not think it was feasible for that parcel of land.

Mr. Siderio asked how the plan would need to be modified to be compliant with the UDO. Mr. Richards responded that staff can only evaluate a request that is brought forward but certainly, the applicant could make changes to address the items evaluated in the staff report to address Plan consistency.

Mr. Siderio and Mrs. Kuropas questioned if the church had been approached about the access to the parking lot. Mr. Bostic responded that no they have not approached the church.

Mr. Siderio stated that he is concerned about the right turn only and would like a left turn onto Rogers Road. Mr. Bostic responded that the North Carolina Department of Transportation will not approve a left turn.

Karin Kuropas asked the applicant if their stormwater management ponds would alleviate the flooding on Woodstaff Ave. Mr. McGrath responded that everything will run to the creek based on the topo and would be required to obtain regulatory approvals.

Sheila Bishop asked if residents will be responsible for keeping up the retaining walls, and amenities. Mr. McGrath responded that putting the long-term maintenance of these

features in the HOA covenants is typical of this type of development. It would really be an issue when covenants are prepared as to who is responsible for what and types of assessments that may be permitted. Ms. Bishop asked if they have considered the modification of their plan to be in more compliance with the community plan. Mr. McGrath responded that there is a minimum density at which the project can be completed.

Karin Kuropas asked if the street parking was purposely put near the parks, the amenities area, and the mailboxes and if it is for the tenants or visitors to the park. Mr. Bostic responded the parking is an extra measure of convenience.

ACTION:

Mover: Michael Almquist moved that project RZ-22-08 Rogers Road Townhomes not be approved because it is generally inconsistent with the comprehensive plan and is not in the public interest.

Secunder: Sheila Bishop.

Vote: Motion carried 5-0.

Recessed 8:22 p.m.

Reconvened 8:30 p.m.

8. New Business

8.A. Presentation on the Wake Forest Public Transit Plan Transit Service Alternatives

Jared Draper presented the plan overview, purpose and need, transit service alternatives, and strengths and weaknesses of the draft Wake Forest Public Transit Plan alternatives.

9. Staff Comments

No Staff Comments presented.

10. Planning Board Comments

No Planning Board Comments Presented.

11. Adjournment

ACTION:

Mover: Michael Siderio moved to adjourn at 9 p.m.

Secunder: Michael Hickey.

Vote: Motion carried 5-0.

Duly approved in open session this 21st day of August 2023.

Ella Dowtin
Deputy Town Clerk

Karin Kuropas
Planning Board Chair



Planning Board Agenda Item Report

Agenda Item No.: 2023-190-

Submitted by: Courtney Tanner

Submitting Department: Parks & Recreation

Meeting Date: August 21, 2023

SUBJECT

Wake Forest Parks & Recreation Master Plan Update: Project Kick-Off Presentation

Recommendation:

Item Summary:

ATTACHMENTS

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Planning Board Agenda Item Report

Agenda Item No.: 2023-192-
Submitted by: Timothy Richards
Submitting Department: Planning
Meeting Date: August 21, 2023

SUBJECT

Consideration of LEGISLATIVE CASE RZ-23-01, 4Rivers - Wake Forest Self Storage, a conditional rezoning filed by Rob Caudle on behalf of Franklin Village, LLC, to rezone 2.64 acres located at 0 Friendship Chapel Road, being Wake County Tax PIN 1850066925, from General Residential 10 (GR10) to Highway Business Conditional District (HB-CD).

Recommendation:

Item Summary:

ATTACHMENTS

- [RZ-23-01 Staff Report v1.pdf](#)
- [Attachment A - Neighborhood Meeting Information.pdf](#)
- [Attachment B - Application.pdf](#)
- [Attachment C - Maps.pdf](#)
- [Attachment D - Plan Consistency Analysis.pdf](#)
- [Attachment E - Parking Generation Memorandum.pdf](#)
- [Exhibit 1 - 4Rivers - Wake Forest Self Storage Master Plan.pdf](#)



Staff Report

Case RZ-23-01: 4Rivers - Wake Forest Self Storage Conditional Rezoning

Meeting Date	August 21, 2023
Requested Actions	Consideration of the following items related to the Conditional Zoning request for 0 Friendship Chapel Road: 1. Act on Plan Consistency Statement 2. Rezone 2.64 acres on the Town of Wake Forest Zoning Map from General Residential 10 (GR10) to Highway Business Conditional District (HB-CD)
Case Manager	Tim Richards, Senior Planner - Development Services

PUBLIC MEETINGS

Neighborhood Meeting	Public Comment Session	Public Hearing (tentative)
March 14, 2023 (See Attachment A)	August 21, 2023	September 19, 2023

CASE INFORMATION

Applicant	Rob Caudle WithersRavenel 137 South Wilmington Street, Suite 200 Raleigh, NC 27615
Developer	4 Rivers Property Group 301 Fayetteville Street, Suite 1400 Raleigh, NC 27601
Property Owner	Franklin Village, LLC 8368 Six Forks Road, Suite 204 Raleigh, NC 27615
Location	On the Southwestern corner of the intersection of Jones Dairy Road and Friendship Chapel Road.
Addresses	0 Friendship Chapel Road
Wake County Tax PIN	1850066925

Acreage	2.64 acres
Zoning	Existing: General Residential 10 (GR10) Proposed: Highway Business Conditional District (HB-CD)
Land Use	Existing: Vacant Proposed: Storage – Self-Service
Corporate Limits	This application is outside the Town’s corporate limits and within the Town’s extraterritorial planning jurisdiction (ETJ). An annexation petition has not been filed at this time.
Community Plan Designation	Neighborhood Commercial Located within an Activity Center area centered at the Highway 98/Jones Dairy Road intersection.

See Attachment B for a copy of the application and Attachment C for Aerial, Zoning, and Land Use Maps. See Community Plan [page 40](#) in a description of Neighborhood Commercial areas and [page 48](#) for guidance on Activity Centers. See also Community Plan [page 66](#) for relevant policies on commercial development, [page 68](#) for relevant policies on parking, [page 69](#) for relevant policies on screening and buffering, and [page 70](#) for relevant policies on community character.

SURROUNDING LAND USES AND ZONING

	Land Use	Zoning
North	Commercial, Office/Service, and Automotive (Gateway Commons shopping center), Educational/Institutional (child day care, elementary and secondary school), Residential (townhomes),	Conditional Use Highway Business (CU-HB), Residential Mixed-Use Conditional District (RMX-CD)
South	Vacant	Open Space (OS), Residential Mixed-Use (RMX)
East	Vacant, Residential (Single-family detached)	Conditional Use Highway Business (CU HB), Rural Holding District (RD), Residential Mixed-Use (RMX)
West	Residential (Single-family detached)	Open Space (OS), Conditional Use General Residential 5 (CU GR5)

The proposed land use is generally **incompatible** with surrounding land uses.

The proposed zoning is generally **incompatible** with surrounding zoning.

See Attachment C for associated maps.

MASTER PLAN ANALYSIS

Parking	Required: Under UDO Chapter 9.4, for buildings of more than 50,000 square feet of floor area, Indoor Storage/Warehousing uses must provide off-street parking at a ratio of one parking space for every 2,000 square feet of gross floor area. The developer proposes 110,500 square feet of gross floor area, requiring a total of 55 parking spaces. Bicycle parking spaces are required at a ratio of two spaces per each 50 automobile parking spaces provided. Based on the proposed 12 automobile parking spaces, a total of two bicycle parking spaces are required. Proposed: The applicant proposes a zoning condition requiring a minimum of 11 off-street parking spaces for the development, and the Master Plan shows 12 spaces provided. The applicant proposes to provide two bicycle parking spaces. Attachment E is an engineer's memorandum submitted by the applicant as justification for the reduced parking. Summary: The proposed Master Plan does not comply with the minimum parking requirements in the UDO.
Public Utilities	Required: Under UDO Section 6.3.1, the developer must connect to the municipal water and sewer systems. Proposed: The proposed Master Plan shows connections to existing water lines on Friendship Chapel Road, and to an existing sewer line in Jones Dairy Road. Note that if the proposed rezoning is approved, annexation into the Town's corporate limits will be required prior to approval of Construction Plans. Summary: The proposed Master Plan complies with the public utility requirements in the UDO.
Roads	Required: Under UDO Section 6.6, street improvements are required to bring existing streets into conformity with the Town's Comprehensive Transportation Plan (CTP). The CTP identifies Jones Dairy Road as a Major Thoroughfare requiring a 4A cross section, which includes four travel lanes (two in each direction), a planted median, curb and gutter, a verge planted with street trees, and a multi-use path on each side of the street in this location. Friendship Chapel Road is shown as a Collector requiring a 3A cross section, which includes two travel lanes (one in each direction), center turn lane, curb and gutter, a verge planted with street trees, and a sidewalk on each side of the street. Under UDO Section 6.11.1, a Transportation Impact Analysis (TIA) is not required for the proposed development.

	Proposed: The developer proposes completing all street and frontage improvements necessary to bring the adjacent roadways into conformity with the CTP cross sections. Summary: The proposed Master Plan complies with the minimum roadway infrastructure requirements in the UDO.
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PROPOSED MODIFICATIONS OF STANDARDS

The table below summarizes modifications to UDO standards proposed by the applicant that would make the standards less restrictive.

Parking (Section 9.4)	Required: One off-street parking space for every 2,000 square feet of floor area, totaling 55 spaces for the proposed 110,500 square-foot building. Proposed: 12 off-street parking spaces. Summary: The current UDO standard does not distinguish between self-service storage facilities and other types of indoor storage and warehousing. The applicant has submitted a memorandum in support of a reduced parking ratio of 0.10 spaces per each 1,000 square feet based on the Parking Generation Manual (5th Edition), published by the Institute of Transportation Engineers, which provides a specific coefficient for mini-warehouse, another commonly used term for self-service storage facilities. <i>See Attachment E.</i>
Loading (Section 9.4.5.C)	Required: Required off-street loading spaces must be located to the side or rear of the lot to maximize the street exposure of the primary structure. Street side loading docks must be set back at least 70' from the property line abutting the street right-of-way. If visible from the street, loading areas must be screened on three sides by a minimum 6' tall solid, decorative fence, wall, or hedge. Loading spaces must not intrude into any portion of a required parking aisle. Proposed: The proposed Master Plan includes three off-street loading spaces located at the front of the lot approximately 36' from the front lot line at the street right-of-way. No screening of the loading spaces is proposed, other than the required parking area perimeter shrubs. Summary: The UDO standards for loading area location, configuration, and screening are designed to minimize visibility of these areas and their activities from the street, and to maximize street exposure of the primary building. The proposed Master Plan places the loading areas in a prominent, highly visible location at the front of the building.

Pedestrian/ Bicycle Connections (Section 6.5.3.A)	Required: Development abutting greenways must provide pedestrian/bicycle access at a minimum of every 600 feet when feasible. Proposed: The site abuts proposed greenways to the West and South of the site. No pedestrian/bicycle greenway access is proposed. Summary: The UDO standard requiring pedestrian/bicycle access to abutting greenways is intended to improve connectivity and access to people walking or riding a bicycle. Because the site is relatively small and located at a corner with nearby greenway connections from the sidewalk and multi-use path on the abutting street frontage, a degree of connectivity is already anticipated without the required on-site connections. The required on-site pedestrian/bicycle greenway connections would provide greater benefit were a more active, pedestrian-oriented development (e.g., retail, restaurants, mixed-use development), as called for in the Community Plan, to occur on the site.
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See Attachment B for zoning conditions proposed by the applicant.

COMPREHENSIVE PLAN CONSISTENCY

Community Plan (2022)	The proposed zoning map amendment request is inconsistent with the adopted 2022 Community Plan. The five main areas of inconsistency are: • Neighborhood Commercial areas (page 40): These areas are local-serving commercial nodes that provide surrounding residents with convenient access to day-to-day goods and services, including establishments like hair salons, cafes, dry cleaners, restaurants, and small grocery or convenience stores. New development should consist of vertical mixed-use buildings, with ground floor commercial uses and upper story residential or office uses. Development in these areas should support compact, pedestrian-oriented, mixed-use environments, with building scales compatible with adjacent residential areas, and should provide a transition in intensity from more intense commercial areas to residential neighborhoods. High levels of pedestrian and bicycle access to residential areas should be emphasized, with well-connected sidewalks, trails, and bicycle routes ensuring residents can easily access goods and services in the area without having to drive. Primary uses identified include commercial retail and service, food and drink, office, and mixed-use. Supporting uses identified include institutional and civic, entertainment and cultural, public gathering space, live-work units, and upper story residential units. The proposed Storage – Self-Service use, which the UDO classifies as an Industrial/Wholesale/Storage use, is inconsistent with the types of uses envisioned for Neighborhood Commercial areas. The proposed site plan emphasizes parking and loading activities above all else along the main street frontage. Fundamentally, and in its particulars, the proposed rezoning is inconsistent with the Community Plan direction for Neighborhood Commercial areas.
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	• Activity Center areas (page 48): Activity centers are unique focal points of the community that should comprise a wide variety of uses in a pedestrian-scale environment that enhance the quality of life, create a distinct sense of place, and provide a living experience unique to Wake Forest. As noted above, the proposed Master Plan shows parking and loading spaces at the front of the building, with the loading spaces bisecting the sidewalk along the front of the building, and without any of the UDO-required loading area screening. Aside from the proposed glass sliding doors at the loading area, the applicant has not proposed any enhanced architectural standards above the baseline UDO standards to ensure the building is high-quality and that its scale and massing are appropriate. Overall, the automobile-oriented site design is inconsistent with UDO requirements and Community Plan guidance for Activity Centers and does not provide a distinct sense of place to support a living experience unique to Wake Forest. • Parking lots (page 68): Off-street parking should be located to the side or rear of the primary building, and pedestrian walkways should be provided in parking lots. Staff does not object to the amount of parking proposed; however, its location between the building and the street, and the loading area's interruption of the sidewalk connecting parking on the eastern portion of the parking lot to the primary building entrances, run counter to the Community Plan direction for parking lots. • Screening and buffering (page 69): Utility, loading, outdoor storage, and trash disposal areas that would otherwise be visible from the right-of-way or adjacent development should be screened. As noted above, no screening is proposed for the loading area. • Community character (page 70): New development should be contextual to the existing character of the area in terms of scale, massing, setback, fenestration, and design features. Quality development should be emphasized along highly visible thoroughfares in the Town to reinforce its positive image. In accordance with the Land Use Plan, incompatible, high intensity uses should be directed away from low intensity residential uses. The proposed development site is located at a prominent corner abutting Jones Dairy Road, a major thoroughfare, to the East, an existing single-family residential neighborhood to the West, and the Gateway Commons shopping center to the North. The proposed, single-use, multi-story storage facility, proposed with the loading and parking areas facing the street and without enhanced architectural standards, is inconsistent with the Community Plan's direction for community character.
Comprehensive Transportation Plan (2019)	The proposed zoning map amendment request is generally consistent with the Comprehensive Transportation Plan.
Historic Preservation Plan (2012)	The Historic Preservation Plan is not applicable to the zoning map amendment request.

Northeast Neighborhood Plan (2007)	The Northeast Neighborhood Plan is not applicable to the zoning map amendment request.
Park, Recreation, and Cultural Resources Master Plan (2015)	The Parks, Recreation, and Cultural Resources Master Plan is not applicable to the zoning map amendment request.
Public Art Vision Plan (2009)	The Public Art Vision Plan is not applicable to the zoning map amendment request.
Renaissance Plan (2017)	The Renaissance Plan is not applicable to the zoning map amendment request.
<i>See Attachment D for detailed Plan Consistency Analysis. The Comprehensive Transportation Plan is not included in the Consistency Analysis since cross-sections are the only applicable element of the Plan. Other plans that are not applicable are not included in Attachment D.</i>	

STAFF RECOMMENDATION

The zoning map amendment request is generally **Inconsistent** with the relevant policies in the Comprehensive Plan, as noted in the discussion above, and **Disapproval** of the zoning map amendment request is reasonable and in the public interest because of that inconsistency and the exceptions to UDO standards requested by the applicant.

ATTACHMENTS

Attachment A: Neighborhood Meeting Information
Attachment B: Application
Attachment C: Maps
Attachment D: Plan Consistency Analysis
Attachment E: Parking Generation Memorandum

EXHIBITS

Exhibit 1: 4Rivers - Wake Forest Self Storage Master Plan



Mark D. Frederick

Associate

Telephone: 919.828.4023

Direct Fax: 919.835.4552

markfrederick@parkerpoe.com

Atlanta, GA
Charleston, SC
Charlotte, NC
Columbia, SC
Greenville, SC
Raleigh, NC
Spartanburg, SC
Washington, D.C.

March 3, 2023

Re: Notice of Neighborhood Meeting

Neighboring Property Owners:

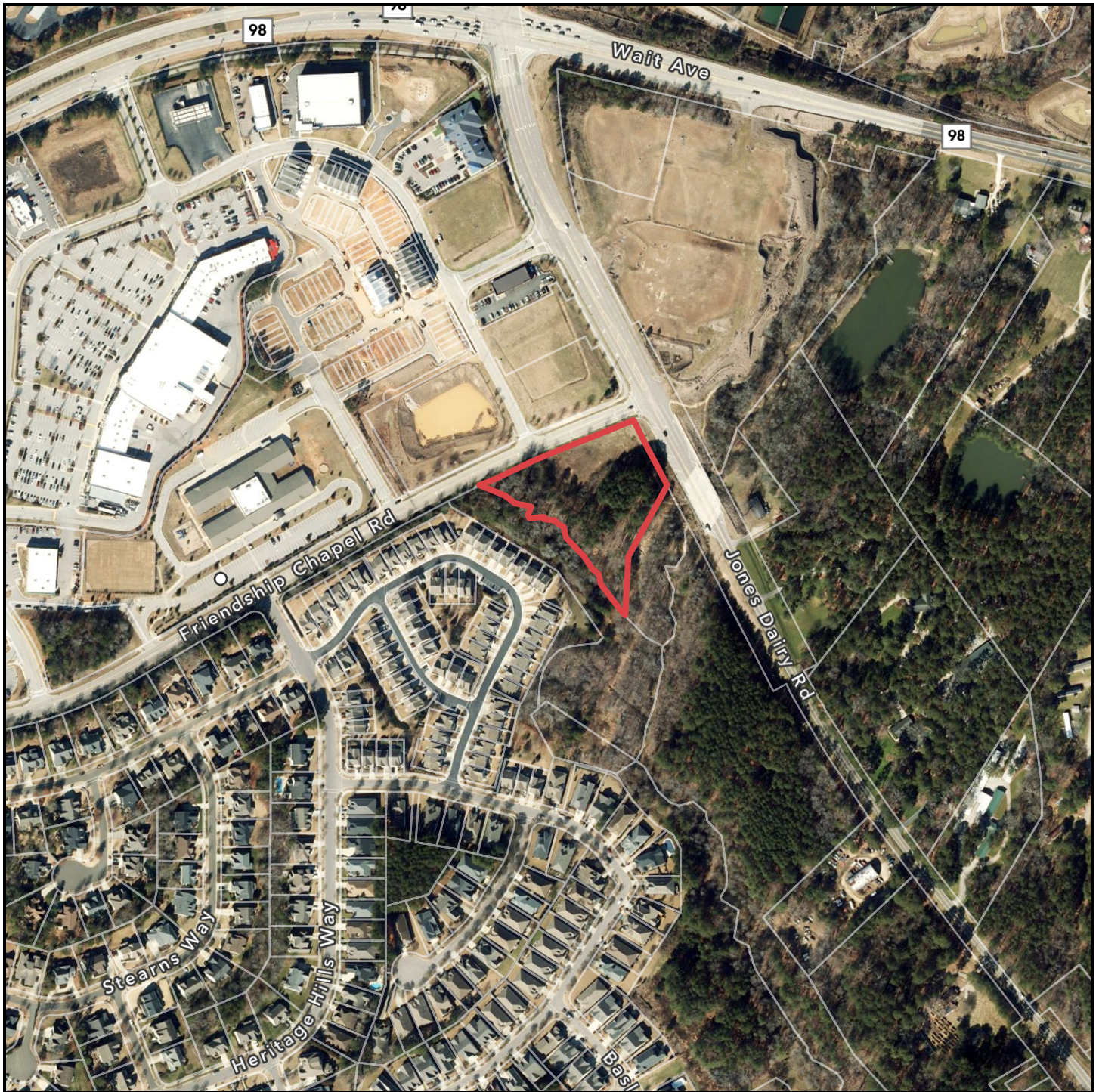
You are invited to attend a neighborhood meeting on March 14, 2023, at 6:00PM at the Fairfield Inn & Suites by Marriott Raleigh-Wake Forest, located at 12051 Retail Drive, Wake Forest, NC 27587. The purpose of the meeting is to discuss RZ-23-01, a requested rezoning of a parcel of land located at 0 Heritage Lake Road (PIN: 1850066925) (the "Site"). The Site is currently zoned General Residential-10 (GR10). This proposal would rezone the Site to Highway Business Conditional District (HB-CD) to allow for the construction of a multi-story self-storage facility. During the meeting, the applicant will describe the nature of the proposed rezoning request and field any questions from the public. Enclosed are: (1) a vicinity map outlining the location of the parcel; and (2) a copy of the preliminary site plan.

Prior to the legislative public hearing of any rezoning application, the Town of Wake Forest requires that a neighborhood meeting be held for all property owners within 500 feet of the area requested for rezoning. Any landowner or community member who is interested in learning more about this project is invited to attend. This project will be taken up for future consideration by the Town's Planning Board for a public comment session and the Town's Board of Commissioners for a public hearing. You will be receiving a notices from the Town regarding the public comment session and public hearing at later dates.

If you have any questions about this rezoning, please contact me at (919) 835-4023 or via email at markfrederick@parkerpoe.com.

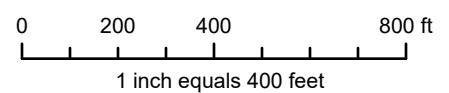
Thank you,

Mark D. Frederick

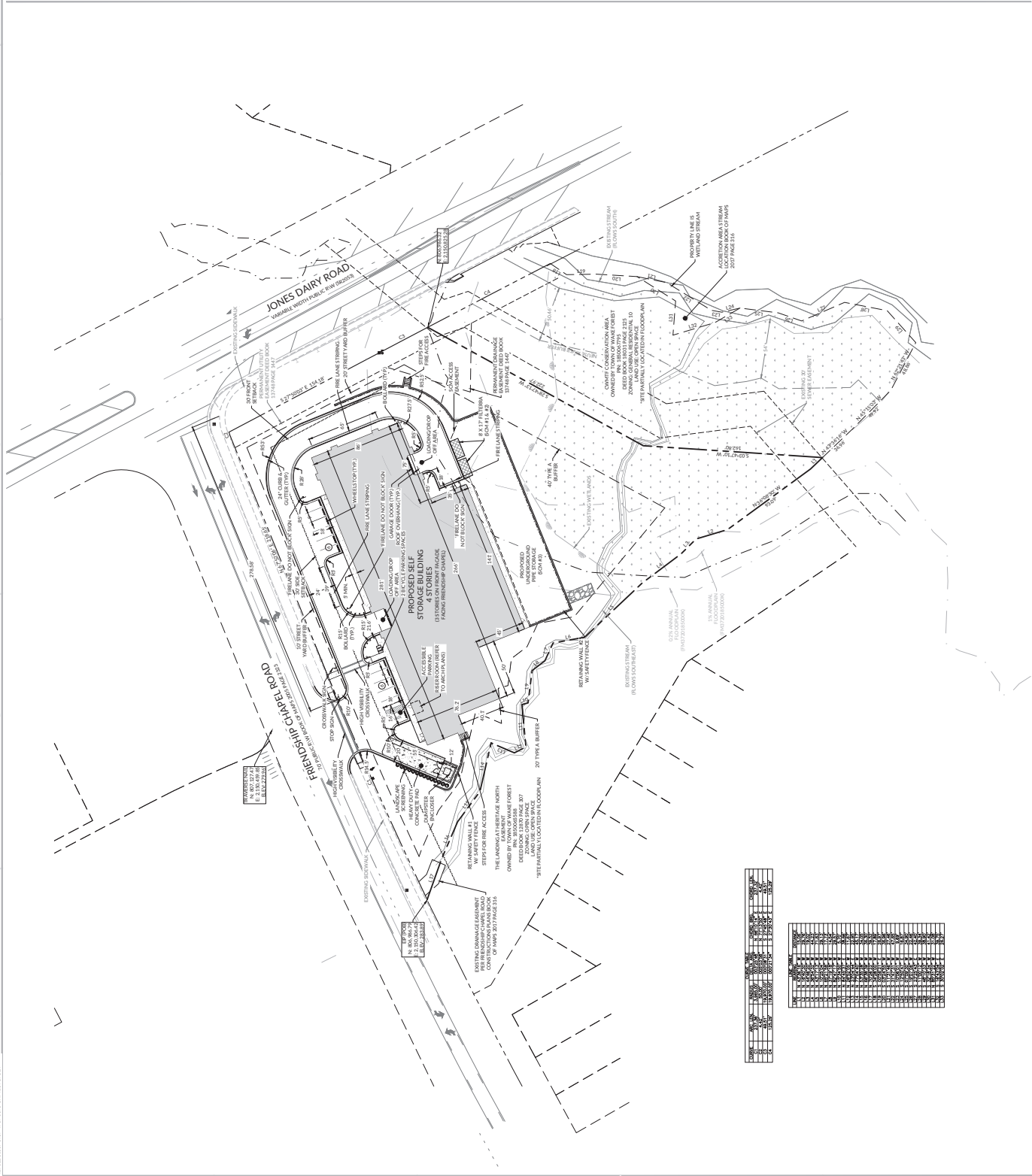


0 Heritage Lake Road

Vicinity Map



Disclaimer
*iMaps makes every effort to produce and publish the most current and accurate information possible. However, the maps are produced for information purposes, and are **NOT** surveys. No warranties, expressed or implied, are provided for the data therein, its use, or its interpretation.*



SITE DATA TABLE	
DEVELOPMENT NAME	4 RIVERS - WAKE FOREST
PROJECT NAME	SELF STORAGE
TOWN/LOT WAKE FOREST PROJ. NO.	SP-20-XX
300 JONES DAIRY ROAD	WAKE FOREST, NC 27803
DEVELOPER	4 RIVERS PROPERTY GROUP
OWNER	TRANSNEXUS LLC
WAKE COUNTY PARCEL NO. & PIN	0320086 & 180066755
CURRENT ZONING	GB-30
PROPOSED ZONING	N/A
GROWTH STRATEGY DESIGNATION	OVERLAY DISTRICT
PARCEL ACREAGE	244 AC
NUMBER OF LOTS/LOTS PER PHASE	1
RIGHT OF WAY ACREAGE	N/A
PROPOSED USE	SELF STORAGE
PROPOSED SERVICES	STORAGE
PROPOSED PARKING SPACE	N/A (NOT REQUIRED)
PROPOSED DRIVE/ROADS/COVERAGE	N/A
TOTAL	1.111 AC (18%)
BUILDING	1.27,800 SF (6.43 AC)
PARKING	1.18,400 SF (6.43 AC)
SEWER	1.2.18 SF (0.01 AC)

MINIMUM BUILDING SETBACKS	
FRONT	30 FT
REAR	30 FT
SIDE	30 FT
MINIMUM LOT COVERAGE	
FRONT	100 FT
REAR	400 FT
PROPOSED FRONTAGE	400 FT
BUILDING INFORMATION	
PROPOSED NUMBER OF BUILDINGS	1
PROPOSED BUILDING SF	1,110,000 SF (10,000)
PROPOSED BUILDING HEIGHT	3 STORIES PLUS BASEMENT LEVEL
PROPOSED BUILDING FOOTPRINT	3 STORIES PLUS BASEMENT LEVEL
PROPOSED BUILDING SETBACKS	3 STORIES PLUS BASEMENT LEVEL
MINIMUM REQUIRED PARKING	12 SPACES PER 1,000 SF OF GROSS FLOOR AREA
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PROPOSED BUILDING FOOTPRINT	3 STORIES PLUS BASEMENT LEVEL
PROPOSED BUILDING SETBACKS	3 STORIES PLUS BASEMENT LEVEL
MINIMUM REQUIRED PARKING	12 SPACES PER 1,000 SF OF GROSS FLOOR AREA
MINIMUM REQUIRED PARKING	12 SPACES PER 1,000 SF OF GROSS FLOOR AREA
MINIMUM REQUIRED PARKING	12 SPACES PER 1,000 SF OF GROSS FLOOR AREA

MINIMUM BUILDING SETBACKS	
FRONT	30 FT
REAR	30 FT
SIDE	30 FT
MINIMUM LOT COVERAGE	
FRONT	100 FT
REAR	400 FT
PROPOSED FRONTAGE	400 FT
BUILDING INFORMATION	
PROPOSED NUMBER OF BUILDINGS	1
PROPOSED BUILDING SF	1,110,000 SF (10,000)
PROPOSED BUILDING HEIGHT	3 STORIES PLUS BASEMENT LEVEL
PROPOSED BUILDING FOOTPRINT	3 STORIES PLUS BASEMENT LEVEL
PROPOSED BUILDING SETBACKS	3 STORIES PLUS BASEMENT LEVEL
MINIMUM REQUIRED PARKING	12 SPACES PER 1,000 SF OF GROSS FLOOR AREA
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WithersRavenel

License # F-1479 | C-1916 685 3340 | www.withersravenel.com

111 Main Street, Suite 200
Charlotte, NC 28202



4 RIVERS

1200 EAST HOBBS ROAD, SUITE 200
CHARLOTTE, NC 28204

MASTER PLAN

4 RIVERS - WAKE FOREST

SELF STORAGE

300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY



PRELIMINARY

NOT APPROVED FOR CONSTRUCTION

Kevin L. Lippert

DATE: 11/10/2023

SCALE: 1"=100'

DATE: 11/10/2023

REVISIONS:



DATE: 11/10/2023

SCALE: 1"=100'

DATE: 11/10/2023

REVISIONS:

OVERALL SITE PLAN

C2.0

MASTER PLAN APPROVAL

BY THE TOWN OF WAKE FOREST

PLANNING: _____ DATE: _____

ENGINEERING: _____ DATE: _____

APPROVED FOR CONSTRUCTION: _____ DATE: _____

are not released for construction. Approval is valid for two years from the date above.

0 Heritage Lake Road - 500ft Property Owner List

OWNER	ADDR1	ADDR2	ADDR3
951 GATEWAY COMMONS LLC	7610 SIX FORKS RD STE 200	RALEIGH NC 27615-5049	
ALLEN, KIMBERLY ALLEN, BRADLEY	1412 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4556	
AMEGASHIE, AISLEY BAILEY, JENNIFER	1026 GATEWAY COMMONS CIR	WAKE FOREST NC 27587-8688	
ARAUJO, JUAN ELIAS DIAZ RIVAS, YURUBI COROMOTO FUENMAYOR	421 HAMMOND OAK LN	WAKE FOREST NC 27587-4561	
BALD, DAVID DOUGLAS BALD, JUDY RICHARDSON	353 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
BANDARUPALLI, SUSHMA RAMANUJAM, VARUN	1022 GATEWAY COMMONS CIR	WAKE FOREST NC 27587-8688	
BARBER, LISA F BARBER, SHAWN A	628 WALTERS DR	WAKE FOREST NC 27587-6179	
BISHOP, JONI LEE	321 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
BRASWELL CUSTOM HOMES INC	PO BOX 40159	RALEIGH NC 27629-0159	
BRASWELL, ANTHONY BRASWELL, SHANNEN FIELDS	614 GATEWAY XING	WAKE FOREST NC 27587-8597	
BREMER, MARILYN J	408 HAMMOND OAK LN	WAKE FOREST NC 27587-4560	
CANTU, JUAN A AGUILLON, DIANA	1424 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4556	
CARTER, TERESA ANN	373 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
CHARTER DEVELOPMENT COMPANY LLC	3850 BROADMOOR AVE SE STE 201	GRAND RAPIDS MI 49512-3975	
COBB, RANDY	1400 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4556	
DENNIS, CHRISTINA M	2027 HOPETON AVE	RALEIGH NC 27614-7303	
DODGSON, DAVID A BIRD, MEREDITH SL	618 GATEWAY XING	WAKE FOREST NC 27587-8597	
EICHORN, CONNIE M	412 HAMMOND OAK LN	WAKE FOREST NC 27587-4560	
ESCLAMADO, RAMON M ESCLAMADO, LORRAINE K	329 DIMOCK WAY	WAKE FOREST NC 27587-4478	
ETTS, CHRISTOPHER CALMA, MARIA FAUSTINA	3 EDITH CT	PORT JEFFERSON STATION NY 11776-4467	
FOOD LION LLC	ATTN REAL ESTATE DEPT	PO BOX 1330	SALISBURY NC 28145-1330
FOX, CHARLES T FOX, MARY A	425 HAMMOND OAK LN	WAKE FOREST NC 27587-4561	
FRANK, JON FRANK, MARGUERITE	624 GATEWAY XING	WAKE FOREST NC 27587-8597	
FRANKLIN VILLAGE LLC	PO BOX 97487	RALEIGH NC 27624-7487	
FREEDMAN, RONALD D FREEDMAN, DARLENE L	333 DIMOCK WAY	WAKE FOREST NC 27587-4478	
GATEWAY FOREST LLC	PO BOX 31827	RALEIGH NC 27622-1827	
GRIFFIN, DOREEN LASHAI DENNIS, JUANITA	600 GATEWAY XING	WAKE FOREST NC 27587-8597	
HARMENING, ROBERT J HARMENING, JOAN L	341 DIMOCK WAY	WAKE FOREST NC 27587-4478	
HAVEN, DANIEL T	509 HAMMOND OAK LN	WAKE FOREST NC 27587-4563	
HEIZMAN, JAMES M HEIZMAN, THERESA	321 DIMOCK WAY	WAKE FOREST NC 27587-4478	
HOLLAND, BARBARA	316 HAMMOND OAK LN	WAKE FOREST NC 27587-4558	
HOYOS, MARIA FERNANDA	317 DIMOCK WAY	WAKE FOREST NC 27587-4478	
INIGUEZ, MARIA J VEJAR TELLO, JUAN P CUEVA	1429 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4557	
JACKMAN, SHARON B JACKMAN, ROLLIE W	325 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
JACKSON, SHELLEY L	1420 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4556	
JOHNSON, DAVA	329 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
JOYNER, HENRY EDWARD JOYNER, CAROL P	303 JONES DAIRY RD	WAKE FOREST NC 27587-5979	
KERR, PAUL A KERR, JOSEPHINE A	1416 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4556	
LANDING AT HERITAGE OWNERS ASSN INC THE	CHARLESTON MGMT CORP	PO BOX 97243	RALEIGH NC 27624-7243
MARKS, KELLY A	365 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
MARSH, OSWALD MARSH, EUADORA	333 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
MCKEE HOMES LLC	4208 SIX FORKS RD STE 810	RALEIGH NC 27609-6092	
MCNULTY, THOMAS C MCNULTY, ANDREA K	1404 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4556	
MELUKOTA, VENKATA RAVI GOLLURU, VARDARAJAN	904 MAYNARD CREEK CT	CARY NC 27513-3505	
MESSINA, JOHN PHILIP MESSINA, KAREN MARIE	70 WEST ST APT B16	HARRISON NY 10528-4016	
MEYER, MANUELA M	505 HAMMOND OAK LN	WAKE FOREST NC 27587-4563	
MIOLLA, WILLIAM J MIOLLA, BRENDA T	501 HAMMOND OAK LN	WAKE FOREST NC 27587-4563	
MONDEN, WILLIAM MONDEN, KENDRA D	610 GATEWAY XING	WAKE FOREST NC 27587-8597	
MYERS, ANTHONY JOHN MYERS, LUISA	1421 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4557	
MYRLAK, RICHARD M MYRLAK, RUBY M	321 MORTIMER AVE	RUTHERFORD NJ 07070-2219	
NAVIN, BRADLEY P NAVIN, RHIANNON	29 PRYER PL	NEW ROCHELLE NY 10804-4503	
NC WAKE PROPERTIES INC	230 CAPCOM AVE STE 103	WAKE FOREST NC 27587-6510	
NDUNGU, ROBERT W GATHEMBE, CAROLINE	513 HAMMOND OAK LN	WAKE FOREST NC 27587-4563	
O'CONNOR, BRIAN	345 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
OLADIPO, TAOFIKAT A	604 GATEWAY XING	WAKE FOREST NC 27587-8597	
PARKER, NATALIE	622 GATEWAY XING	WAKE FOREST NC 27587-8597	
PEARCE, DOROTHY M AYCOCK HEIRS	MICHAEL R AYCOCK EXEC	255 JONES DAIRY RD	WAKE FOREST NC 27587-7619
PENUMARTHI, VENKATA GOUTHAM PENIMARTHI, LAKSHMI S	1024 GATEWAY COMMONS CIR	WAKE FOREST NC 27587-8688	
PERIATHAMBI, INIGO	192 OAK HAVEN LN	APEX NC 27523-5802	
PETRUCCELLI, THOMAS C PETRUCCELLI, BETSY M	337 DIMOCK WAY	WAKE FOREST NC 27587-4478	
PORCELLI, JOSEPH M PORCELLI, ELISA M	313 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
POTHIREDDY, JAYANTH POTHIREDDY, HEMALATHA	3008 DRESSAGE DR	GREENSBORO NC 27410-9937	
PRIMAX PROPERTIES LLC	1100 E MOREHEAD ST FL 4	CHARLOTTE NC 28204-2815	
PUDMANSKI, JEROME W PUDMANSKI, ROSALIE A	400 HAMMOND OAK LN	WAKE FOREST NC 27587-4560	
PURSELL, NANCY L PURSELL, DALE G	349 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
RAO, ARCHANA GUPTA, DIPTESH	616 GATEWAY XING	WAKE FOREST NC 27587-8597	
ROSENBERG, RONALD M ROSENBERG, LORIE B	405 HAMMOND OAK LN	WAKE FOREST NC 27587-4561	
SAMUELSON, JONATHAN SAMUELSON, MARCIE	602 GATEWAY XING	WAKE FOREST NC 27587-8597	
SANTOS ALVERNIA, LUIS DOS NEXANS, LAURA LUCENA	361 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
SELTMANN, ELLIOTT W SELTMANN, JUDITH A	317 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
SHANKLAND, ROBERT JOSEPH SHANKLAND, ESTHER ANN	404 HAMMOND OAK LN	WAKE FOREST NC 27587-4560	
SHANKLAND, SHERWOOD SHANKLAND, EUNICE	357 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
ST CLAIR, DAVID ST CLAIR, LINDA	1428 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4556	
STREINER, PATRICIA C	1425 KIRKWOOD HILL WAY	WAKE FOREST NC 27587-4557	
TABI LLC	345 JONES DAIRY RD	WAKE FOREST NC 27587-5979	
TACHARAKSPONGSE, RAKTHAM TACHARAKSPONGSE, RUCHIRA	401 HAMMOND OAK LN	WAKE FOREST NC 27587-4561	
TB GATEWAY COMMONS WAKE FOREST LLC	121 IOWA AVE APT 3A	WHITEFISH MT 59937-2312	
TERAN, GERARDO FLORES SEPULVEDA, CLAUDIA P ELIZONDO	325 DIMOCK WAY	WAKE FOREST NC 27587-4478	
TOWN OF WAKE FOREST	301 BROOKS ST	WAKE FOREST NC 27587-2901	
VINSON, CODY STEPHEN WARD, SHAUN MICHAEL	1018 GATEWAY COMMONS CIR	WAKE FOREST NC 27587-8688	
VISSAMRAJU, KRISHNA SUDHA REDDY AVULA, RUPESH KUMAR	1028 GATEWAY COMMONS CIR	WAKE FOREST NC 27587-8688	
WAKE FOREST TOWN OF	301 BROOKS ST	WAKE FOREST NC 27587-2901	
WEIGHTMAN, ANDREW	337 HAMMOND OAK LN	WAKE FOREST NC 27587-4559	
YANICELLI, HECTOR D YANNICELLI, ANA	405 VODIN ST	WAKE FOREST NC 27587-4482	
YARRAGUNTA, SRIKANTH CHIRUMAMILLA, KRISHNA PRIYA	1104 HOLLAND BEND DR	CARY NC 27519-8221	
YAVDOSHYNAK, VASYL YAVDOSHYNAK, OLGA	413 HAMMOND OAK LN	WAKE FOREST NC 27587-4561	
ZHAO, CHUNHUI ZHOU, LI	505 HALLBURG CT	WAKE FOREST NC 27587-4469	
Heritage Landing by Pulte Homes	301 Dimock Way	Wake Forest NC 27587	

MEMORANDUM

Date: March 17, 2023
Project: 4Rivers, Wake Forest SelfStorage Rezoning
Jones Dairy Road and Friendship Chapel Road
Subject: March 14, 2023 Community Meeting

ATTENDANCE:

Development Team

- Mark Frederick, ParkerPoe
- Hunter Dawkins, 4Rivers
- Amber Mason, PE, WithersRavenel
- Karen Mallo, AICP, WithersRavenel

Community Members

- See attached attendance sheet

Pre-meeting discussion and concerns voiced:

- Height
- Noise generation
- Lights
- Proximity to homes
- Residents told it was going to be a greenway

MEETING DETAILS:

Meeting Began 6:00 PM

Mark Frederick opened the meeting and introduced Hunter Dawkins, applicant and contract purchaser.

Mark gave an overall description of the planning process related to the project:

- Rezoning process
- How property can be used
- Owner requests a change in the district:
 - to change use
 - to change regulations
- Changing to build a self-storage facility
- Submitted in January-site plan and rezoning application
- Application and site plan reviewed by town. Town provides comments and team revises
- Neighborhood meeting (required)
 - 500' feet had to be noticed

- provide information regarding project
- List and identify major concerns
- Applicant wants to listen
- Look at plans in details
- Resubmit to town Planning Board-recommendation before going to Public Hearing and Board of Commissioners

PROJECTDETAILS

- 25 acres
- R-10, allows up to 10 units/acre and a variety of residential uses
- Requesting HB, to allow retail services and commercial uses
- However, asking for conditional zoning which will limit use to only self- storage as part of conditions
- Other conditions:
 - Parking (11 parking spaces)
 - Tied to specific use & specific site plan
 - 3 story building
 - Loading inside
- Town requires design standards such as:
 - No outdoor storage
 - 7 AM- 10PM
 - Must look like office (architecturally)
 - Buffers (20' Landscape- all vegetation will be preserved as owner must supplement if not enough)
- Town property is adjacent → which essentially provides another 100' of buffer
- Wetlands, unable to build in that area

Town looks to plan (community plan) and adopts a future land use. This specific property was left off original, intend to be "neighborhood commercial" (map to be adopted) Need to answer questions, "Is project consistent w/ plan"?

Building elevations shown and explained

QUESTIONS / COMMENTS / DISCUSSION

1. Will the Rezoning affect the remaining/adjacent property ? *No, rezoning affects only current property. The Town owns the adjacent property.*
2. If Town wants property commercial why do you need it to be rezoned ? *This is the difference between the zoning map and the Community Plan designation. Right now its zoned residential but designated for future commercial uses when rezoned.*
3. What are the construction logistics? When is start and finish? *It's a 10 month build (less than 6 months outside)*

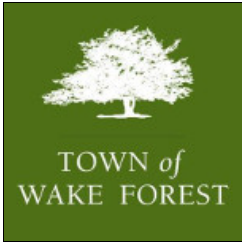
4. How tall is the building? *4 story (basement) on backside (Jones Dairy) but only 3 story on Friendship Chapel*
5. Concern of muddy roads during construction. *Contractors will use water trucks during construction to keep roads clear.*
6. Lighting- Don't want it lit up. When will lights be on? *We need to meet the Town standards for lighting. Lights will be downward facing and shielded. Don't need on at night, except as needed for safety. Building is secured.*
7. Entrance on Jones Dairy Road vs Friendship Chapel Rd.; Why not on Jones Dairy Road? *NCDOT and Town require driveway separation. Not enough room (frontage) to put driveway on Jones Dairy Road.*
8. How many storage units inside? *600 units. Typical user-load & visit again in 6 months Low traffic generation.*
9. Will there be a dumpster on site? *Required to provide a dumpster by the Town. Shielded from view with lid, wall, landscaping.*
10. Fencing will be provided? *Yes, 6' high opaque fence on west property line ; no security fencing as the storage units are inside the secured building.*
11. So it's this or apartments? *Residential is allowed by right or could be zoned to allow another commercial use The benefit of this proposal is that it is a low impact use.*
12. Is the project across the street going to happen? Food lion, day care? *Not part of this project.*
13. What kind of truck traffic? Is there room to move trucks on the site? *Limited to Box Trucks. Radii has been tested.*
14. Parking on street? *Not proposed as part of this project, and not permitted on this type of public street.*
15. When is next meeting? *We anticipate Planning Board May. Board approval August.*
16. Developer/owner? What's involvement in project? *Developer does not own yet, will buy property & own the building but will contract 3- party for operation (eg CubeSmart)*
17. Lighting and signs- make sure not neon. *Will meet Town standards*
18. Is the depiction accurate? *Yes, renderings are accurate but can be slightly altered once they go before Architectural Review Board.*

19. Friendship Chapel Road and Jones Dairy Road setbacks. *30' is provided.*
20. W here is fence? W hat additional landscaping? *Fence is along western property line. Additional landscaping will be required in the buffers if the existing vegetation does not meet the planting standards.*
21. W hat are the surfaces on the building? The front and side are adjacent to their houses- could those be painted or a mural of trees? *Development team will look at whether materials/color can be changed*
22. You should do a financial study on 2 story vs. 3 story w/basement. *Site constraints require vertical construction versus sprawling out across site.*
23. W ho will be doing construction? *Contractors that the applicant has used in the past.*
24. W ill you disturb wetlands? *No. We cannot-controlled by state*
25. Do you have an Environmental impact report and has it been submitted? *We will have to submit w/the engineering plans, stormwater, soil erosion & control. Will meet & exceed the requirements*
26. W ill the storage units be allowed to be used for other purposes (i.e. band practice? *Not permitted. Professional on -site management company will be on site, and all users required to sign contracts that prohibit those types of activities.*
27. Is there demand for more storage units? *Market can support additional storage units based on our analysis. More people are moving to the area, more people work from home and need additional storage, more housing in the area with smaller footprint/less storage, and small business needs.*
28. Traffic light at intersection with Jones Dairy Road? W ith the new Food lion going in up? *Up to DOT to decide after warrant analysis.*
29. Can a rendering of the elevation from the view of the houses to the west be provided? *Yes*
30. Next steps? *Finish staff review & then the public hearings before the Planning Board and Board of Commissioners.*

Meeting ended approximately 6:55 PM

RZ-23-01: Neighborhood Meeting Sign-In Sheet

<u>Name</u>	<u>Address</u>	<u>Email</u>
Sharon + Roland Jackman	325 Hammond Oak Lane Wake Forest NC 27587	sharon@sharonjackman.com
Judy + David Bald	353 Hammond Oak Ln	Davidbald1@hotmail.com
Sandra + Conrad Navin	1408 Kirkwood Hill Way	SANNAVIN2025@gmail.com
ROBERT SHANKLAND	404 HAMMOND OAK LN	ROBSHANKLAND@GMAIL.COM
SHERWOOD SHANKLAND	357 HAMMOND OAK LN.	SherwoodShankland47@gmail.com
EUNICE SHANKLAND	———— " ————	estankland.es@gmail.com
TOM McNulty	1404 Kirkwood Hill Way	Tamcnulty@verizon.net
Josie + Paul Kerr	1416 Kirkwood Hill Way	jokerr46eaol.com
Hector Yannicelli	147 Hammond Oak Ln	d.yannicelli5@gmail.com
Teresa Carter	373 Hammond Oak Ln.	t.carter101@yahoo.com
David Dodgson	618 Gateway Crossing Lane	adodgsonpt@gmail.com
Meredith Bird	618 Gateway Crossing Lane	mslbird@gmail.com
JANET CONWAY ROSE	1028 AUSTIN RIDGE PKWY	janetcrose@gmail.com



Conditional District Rezoning Application

(Conditional District Rezoning - Planning Board Workflow)

Town of Wake Forest, NC
301 S. Brooks St.
Wake Forest, NC 27587-2932
TEL (919) 435-9510 | FAX (919) 435-9539

Project Overview

#937204

Project Title: 4Rivers - Wake Forest Self Storage
Application Type: Conditional District Rezoning
Workflow: Conditional District Rezoning - Planning Board

Jurisdiction: Town of Wake Forest (Wake County)
State: NC
County: Wake

Submittal Requirements

A submittal checklist is available to view additional documents which are required to submitted with this application. After answering the application questions, you will be asked to upload the required documents.

[VIEW CONDITIONAL DISTRICT REZONING
SUBMITTAL CHECKLIST](#)

Missing items will result in the application being declined and returned to the applicant to resubmit. A revised and complete application including all missing items must be received or the application will be not be deemed complete and routed for review.

Please confirm you have reviewed the associated submitted checklist for this permit and confirm you will submit all documents required on the submittal checklist: Yes

Pre-Application Meeting

Has a pre-application conference been held?: Yes

*Note: This type of project requires a pre-application conference be completed prior to official submittal. If this has not been completed, please return to the home screen and select **Pre-Application Conference** from the application type drop down list in order to schedule your required meeting.*

Pre-Application Conference Date: 12/06/2022

Staff Member Met With: Patrick Reidy

IDT Project Number: RZ-23-01

Address & Basic Site Information

Please Note:

In some cases, a parcel address may not verify. In the event that our system is unable to verify the address you enter, please submit the project as an *Unverified Parcel* and provide zoning and land use information as requested below. For verified addresses, the zoning and land use information will be added to the application automatically (you do not need to provide it below).

Project Address or PIN: 1850066925 (Unverified)

Tax PIN:

Acreage: 2.64

Name of Existing Development/Subdivision (if applicable--

for reference only):

For unverified addresses/parcels only, please provide below 1) the current use of the parcel, 2) the zoning district(s) it is in, and 3) any overlay districts that apply. Reference the [zoning map](#) and the [overlay districts map](#) on the town's website.

Current Use & Zoning (required only if address/parcel is unverified):

Vacant. GR10

*Note: Projects falling outside the limits of the Town or ETJ will be required to submit an annexation petition in conjunction with their project submittal. In this case, please return to the home screen and select **Annexation Petition** from the application type drop down.*

GIS Site Information (Automatically Generated - Not Available for Unverified Addresses)

Parcel Area:

Wake Forest (WF):

Base District:

In SH2-O Overlay:

In TND Overlay:

In HL-O Overlay:

In National Register of Historic Places:

Current Use:

Planning and Zoning:

In SH1-O Overlay:

In Water Supply Watershed Protection Overlay:

In SF Overlay:

In MVCP-O Overlay:

In Flood Hazard Area:

Additional Zoning Information

Currently a Conditional District?: No

Currently a Conditional Use?: No

Is there an existing Special Use Permit for the Property?: No **Related Town of Wake Forest Case Numbers:** SP-23-16

Project Contacts

Please enter all project contacts related to your application.

This is an important step to ensure all members of the applicant team receive email notifications associated with the project which may include comments, requested revisions, scheduled meetings or hearings, and final decisions. This also informs Town staff of the team members assigned role with the project.

Project Contact - Applicant

Rob Caudle
WithersRavenel
137 S Wilmington Street, 200
Raleigh, NC 27601
P:9194693340
rcaudle@withersravenel.com

Project Contact - Developer

Hunter Dawkins
4 Rivers Property Group
301 Fayetteville St, Suite 1400
Raleigh, NC 27601
P:704-281-8959
hdawkins@4riverspg.com

Project Contact - Property Owner

Andrew Ammons
Franklin Village LLC
8368 Six Forks Road, Suite 204
Raleigh, NC 27615
P:919-845-6415
markfrederick@parkerpoe.com

Project Contact - Engineer

Erin O'Rawe
WithersRavenel
137 S Wilmington Street, Suite 200
Raleigh, NC 27601
P:919-469-3340
eorawe@withersravenel.com

Project Contact - Attorney

Mark Frederick
Parker Poe Adams & Bernstein
301 Fayetteville Street, Suite 1400

Project Contact - Other

Amber Mason
Withers Ravenel
137 S Wilmington Street, Suite 200
Raleigh, NC 27601
P:919-469-3340
amason@withersravenel.com

Transportation Impact Analysis

As per Section 6.11.1 of the UDO is the project required to provide a Traffic Impact Analysis (TIA)? No

Was the TIA reviewed in a separate permit prior to this application?:

Project Number:

For projects requiring a TIA, a separate TIA application must be submitted in conjunction with this application. Please review the [TIA submittal checklist](#) and submit a ***Transportation Impact Analysis Review*** application in IDT.

i If the request is to a Conditional District (CD), this application should be accompanied by a master plan that includes land use, existing conditions, buildings, lots, etc. per Chapter 15 of the UDO. In addition, please provide a narrative of the proposed use and list any proposed conditions.

Proposed Conditional Zoning District: NB-CD, Neighborhood Business

Proposed Land Use:
Storage -- Self-Service

Proposed Number of Lots: 1

Number of Buildings: 1

Number of Single-Family Lots: 0

Number of Townhome Lots: 0

Number of Multi-Family Units: 0

Number of Stories: 4

Square Footage of All Buildings (non-residential): 110500

Plan Information - Conditional Rezoning

Description of Request:

Request to rezone PIN 1850066925 from GR10 to HB-CD.

Initial Proposed Conditions Offered by Applicant:

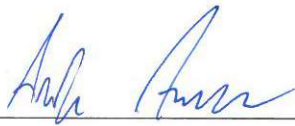
See attached list of Proposed Conditions signed by the landowner.

Justification of Consistency with Comprehensive Plan:

This property is mapped on the Community Plan within the Neighborhood Commercial category. This request is consistent with the Neighborhood Commercial designation because it will provide the surrounding residential area with convenient access to a self-service storage facility. The UDOs architectural conditions will ensure the scale and architecture of the building is compatible with the surrounding area. As recommended by the Neighborhood Commercial designation, the rezoning site is appropriately located at the intersection of Jones Dairy Road and Friendship Chapel Road.

RZ-23-01: Jones Dairy Road Rezoning
Proposed Zoning Conditions

1. The corresponding site master plan is a condition of the rezoning. Amendments of the site master plan shall require a rezoning amendment unless the Administrator finds the modification to be minor and in keeping with the spirit and intent of the adopted site master plan.
2. The landowner shall complete all improvements to the adjacent roadways and roadway frontages as shown on the corresponding site master plan and as identified in the Town of Wake Forest Comprehensive Transportation Plan. Such improvements shall be completed from the center of the roadway to the site property line, or, where approved by the town's Planning and Engineering departments, the landowner may submit a fee to the town in lieu of completing all or part of the improvements.
3. The off-street parking requirements in UDO Section 9.4.B shall be modified to allow a minimum of eleven (11) off-street parking spaces.
4. Required off-street loading spaces are exempt from the standards of UDO Sections 9.4.5.C(1), (2), (3), and (5).
5. Building entrances adjacent to off-street loading spaces shall provide access to the building through sliding glass doors.
6. The development shall be exempt from the pedestrian/bicycle accessway requirements in UDO Section 6.5.3.A.



Property Owner: ANDY AMMONS

Date: 7/25/23

TOWN OF WAKE FOREST

AGENT AUTHORIZATION FORM:

Application #: _____

Submittal Date: _____

Franklin Village, LLC is the owner of the property for which the attached application is being submitted:

- ☒ General Use Rezoning or Conditional District Rezoning
☐ Site Master Plan
☐ Subdivision Master Plan
☐ Construction Drawings
☐ Variance
☐ Major Architectural Review

The property is located at: 0 Heritage Lake Road (PIN 1850066925)

The agent for this project is: Rob Caudle, WithersRavenel

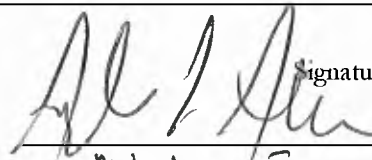
☐ I am the owner of the property and will be acting as my own agent.

Name: Andrew L Ammons, on behalf of Franklin Village, LLC

Address: 8368 Six Forks Road, Suite 204 Raleigh, NC 27615

Telephone Number: _____ Fax: _____

Email Address: _____

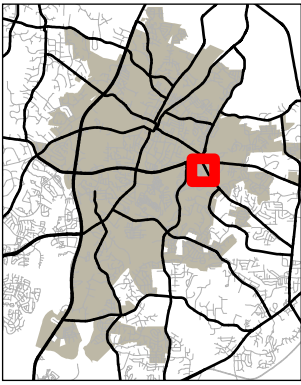

Signature(s) of Owner(s):
Andrew L. Ammons, Franklin Village, LLC

Print or type name(s):

Attach additional sheets if there are additional owners.

***Owner of record as shown on the latest equalized assessment rolls of Wake County. (An option to purchase does not constitute ownership). If ownership has been recently transferred, a copy of the deed must accompany this authorization.**

Last update: August 2018



Aerials



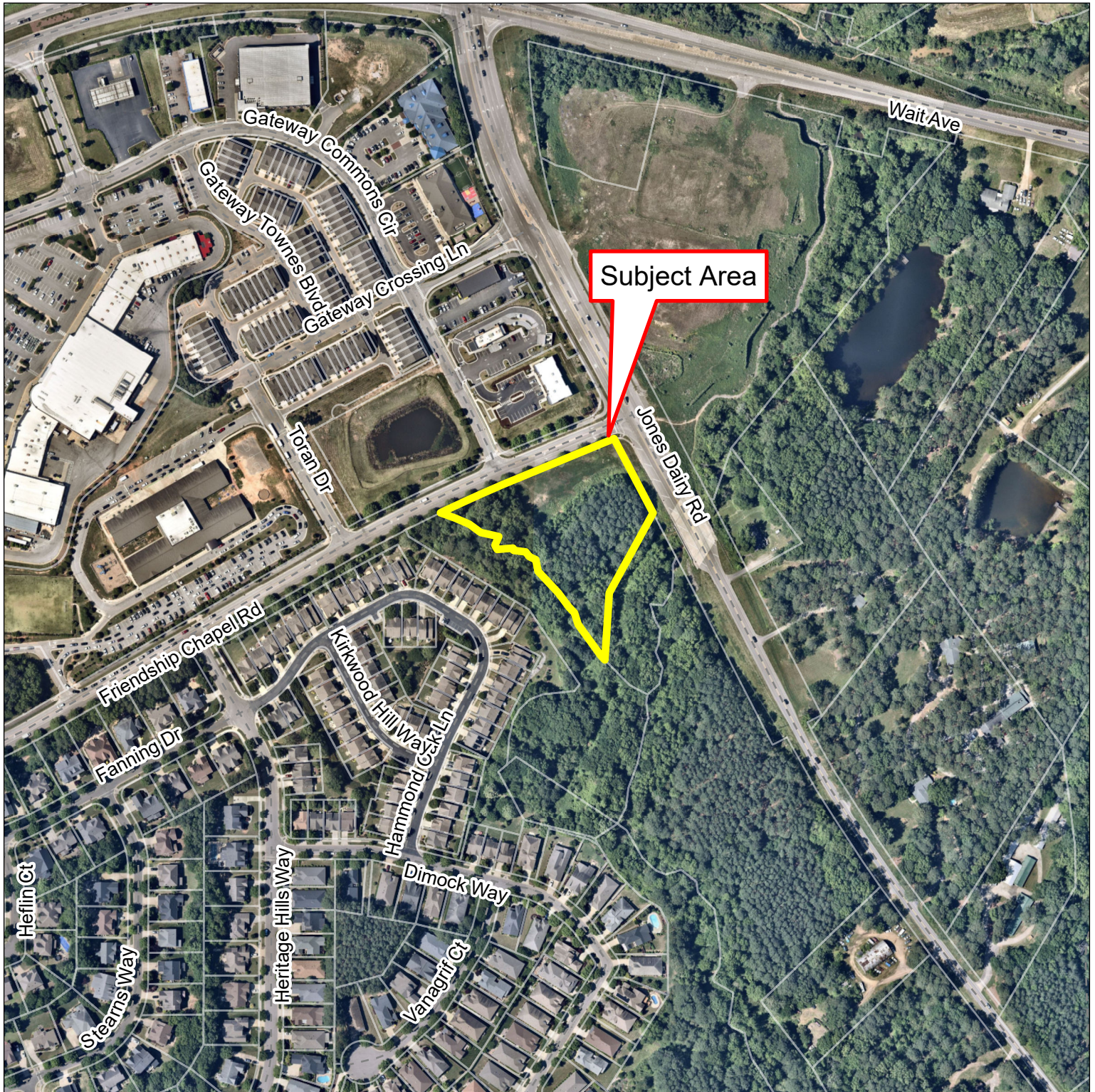
TOWN of
WAKE FOREST

RZ-23-01

Jones Dairy Road Rezoning

PIN: 1850066925

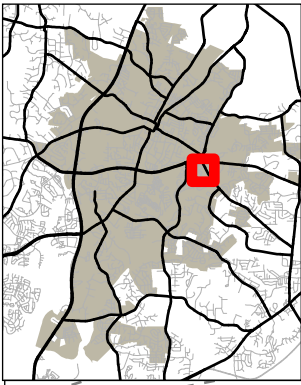
7/25/2023



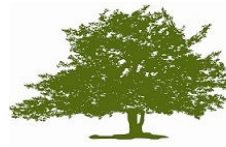
Please note that this map is intended for illustrative purposes only.
For specific inquiries regarding zoning boundaries, contact the
Town Wake Forest Planning Department at 919-435-9510.

0 500 1,000
US Feet





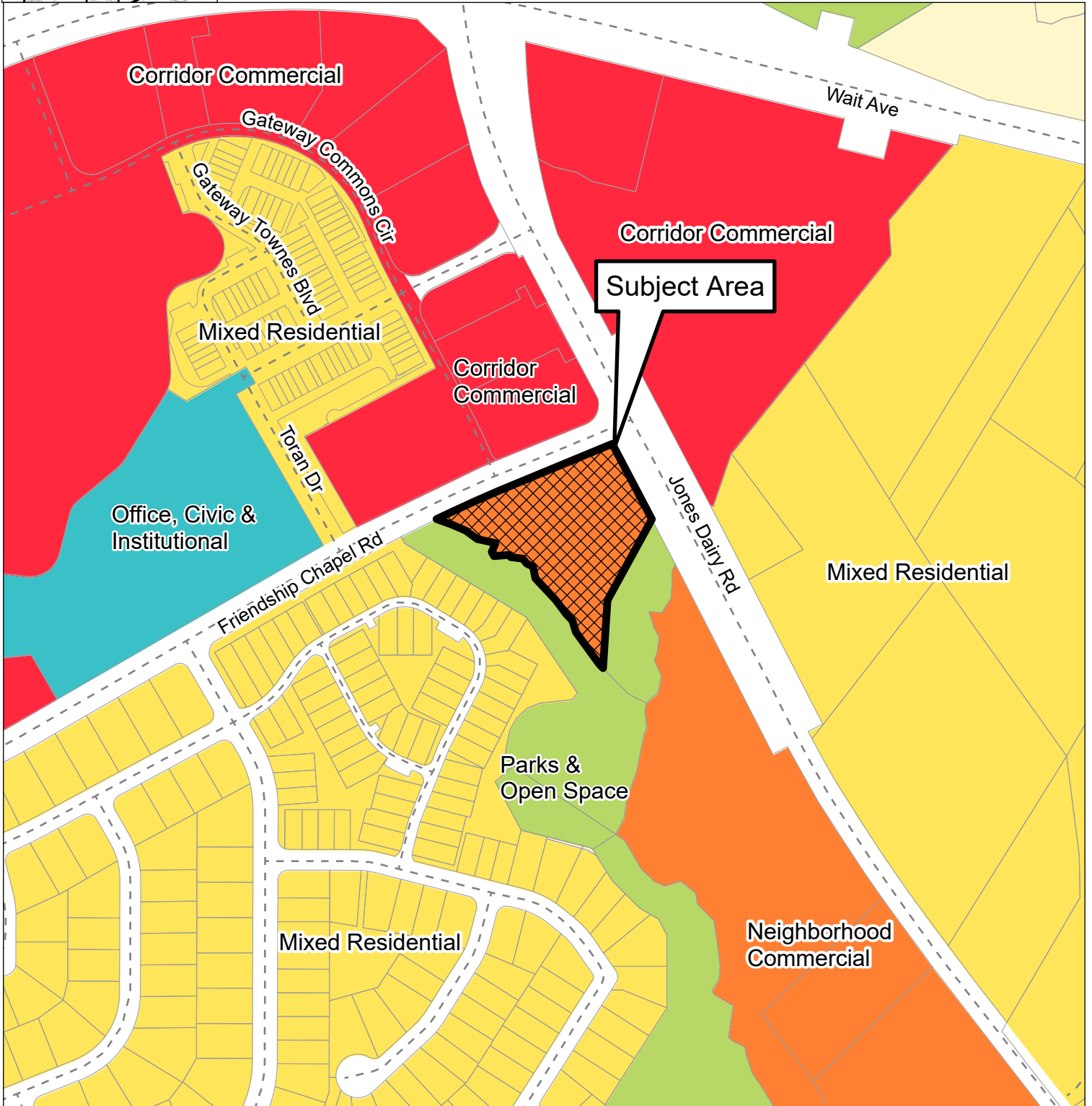
Land Use Plan



TOWN of
WAKE FOREST

RZ-23-01 Jones Dairy Road Rezoning PIN: 1850066925

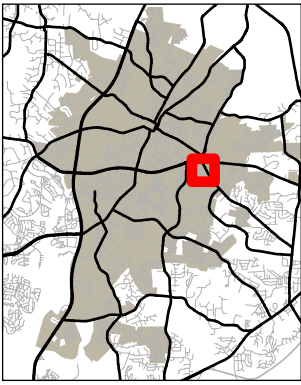
7/25/2023



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Feet





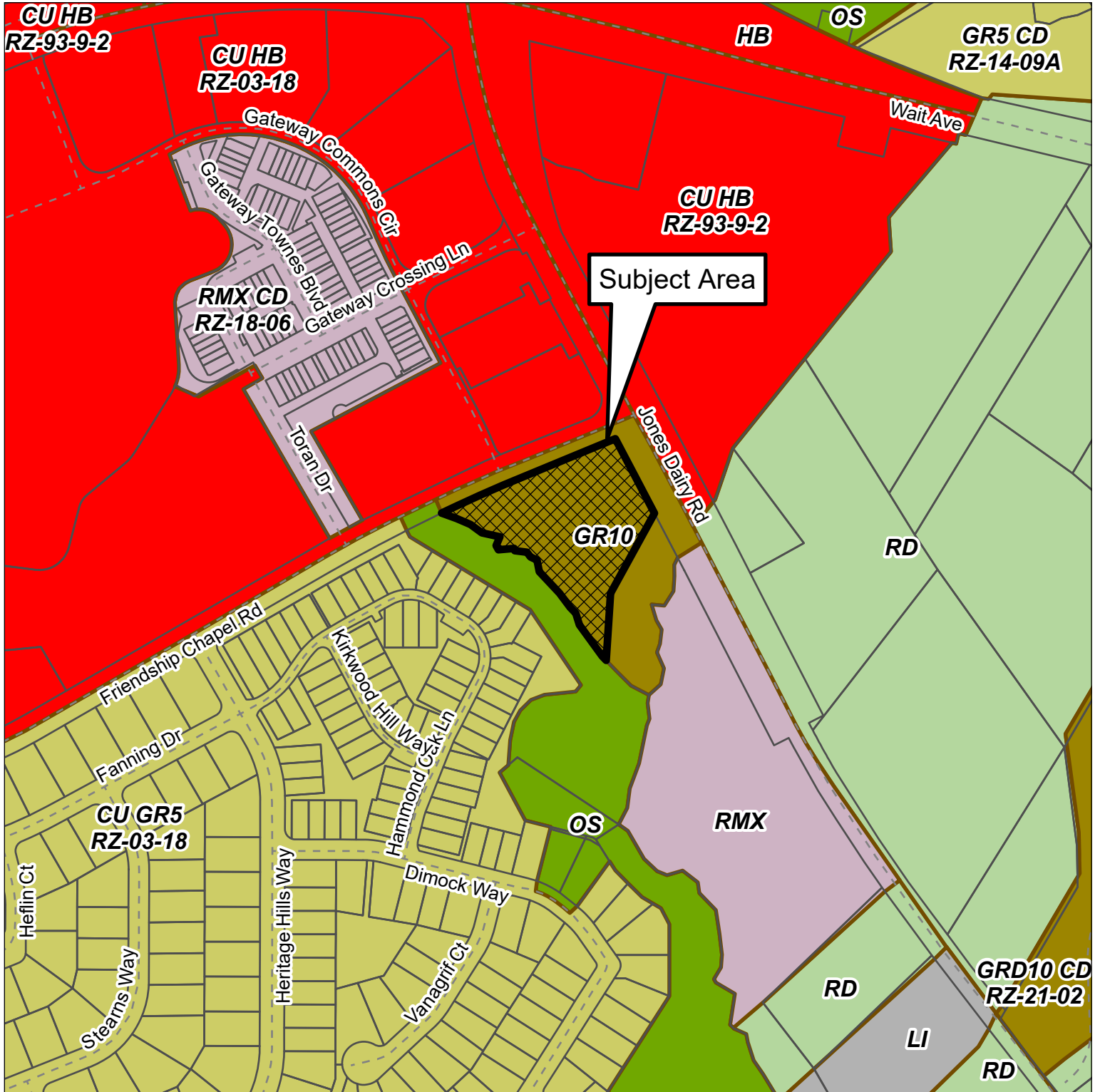
Current Zoning



TOWN of
WAKE FOREST

RZ-23-01 Jones Dairy Road Rezoning PIN: 1850066925

7/25/2023



Please note that this map is intended for illustrative purposes only.
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Town Wake Forest Planning Department at 919-435-9510.

0 500 1,000 Feet



Community Plan Consistency Grid				
POLICIES FOR AFFORDABLE HOUSING		YES	NO	NA
AH-1	Implement Affordable Housing Plan			
POLICIES FOR RESIDENTIAL CHARACTER		YES	NO	NA
RC-1	Encourage single-family attached and multifamily development to incorporate varied building frontages and rooflines, front porches, front yards, and balconies to provide visual interest and complement the scale and character of surrounding single-family neighborhoods			
RC-2	Setbacks of infill development should match the existing context as much as possible as uniform setbacks can help foster a pedestrian-friendly environment			
RC-3	Promote higher density infill and redevelopment within older established neighborhoods to provide greater housing choices while matching the scale and character of existing properties			
RC-4	Promote higher density housing along key corridors and surrounding activity centers. This includes near areas designated in the Land Use Plan as Commercial Corridor; Neighborhood Commercial; Light Industrial; and Office, Civic, and Institutional			
RC-5	For larger scale planned subdivisions that provide a mix of housing types, work with private developers to locate lower density housing near existing single-family detached neighborhoods to create appropriate transitions and preserve the character of established neighborhoods			
RC-6	Consider requiring a minimum percentage of housing types in new neighborhood developments to increase housing diversity and affordability (e.g. at least 20% duplexes/townhomes)			
RC-7	Review and update the UDO to align with residential character recommendations within this Community Plan			
POLICIES FOR SENIOR HOUSING		YES	NO	NA
SH-1	Promote senior housing within a quarter mile of transit stops, Downtown, shopping areas, parks, and recreational facilities			
SH-2	Encourage smaller lot, single-story housing types for seniors that are ADA accessible			
SH-3	Encourage age-targeted cooperative housing types for community-oriented senior living, such as co-housing and cottage home courts			
SH-4	Promote the development of continuing care retirement communities (CCRC), or life plan communities, which offer distinct types of housing and care levels based on a senior's needs			
SH-5	Encourage developers of age-targeted housing to include amenities attractive to seniors, such as front porches, back patios, walking paths, and outdoor sports facilities, and activated gathering spaces			
POLICIES FOR COMMERCIAL DEVELOPMENT		YES	NO	NA
CD-1	Enhance established commercial areas by incentivizing redevelopment and/or renovation of existing businesses.			
CD-2	Support small, local businesses within commercial centers to support unique shopping options within Wake Forest			
CD-3	Establish architectural design standards for commercial building facades that promote quality design while allowing for flexibility that encourages creative design			
CD-4	Promote multi-story structures within Commercial Corridor and Neighborhood Commercial areas at appropriate scales that offer residential or office above ground-floor commercial			
CD-5	Encourage pedestrian-oriented shopping environments with sidewalks, attractive storefronts, and buildings facing each other to create a sense of enclosure			
CD-6	Encourage the incorporation of pedestrian/bicyclist/transit-oriented areas in large-scale shopping centers that provide outdoor seating and gathering areas, bicycle parking stations, and access to transit services			
CD-7	Promote cross-access and pedestrian pathways between adjacent parking lots and leading to buildings to promote well-connected, cohesive shopping areas			

Community Plan Consistency Grid				
CD-8	Encourage the consolidation of commercial driveways onto major streets to reduce traffic conflicts			
CD-9	Require “360 degree architecture” (high quality architecture on all sides of the building as opposed to just the front-facing façade), including well-designed or screened service areas			
CD-10	Encourage businesses to replace existing, non-conforming signage with attractive signage that meets Town standards			
CD-11	Promote outparcel development to improve the character along primary roadways and break up views of large parking lots			
CD-12	Review and update the UDO, including the US 1 Special Highway Overlay (SH1-O) and Dr Calvin Jones Highway Overlay (SH2-O) districts, to align with commercial development recommendations within this Community Plan			
CD-13	Support accessory commercial units (ACUs) that allow the ground floor of residential properties or an accessory structure facing the street to contain a commercial use beneficial to the surrounding neighborhood			
CD-14	Establish block standards for commercial areas to break up large tracts into more human scale pieces with streets or street-like features within the development			
POLICIES FOR MINORITY & WOMEN-OWNED BUSINESSES		YES	NO	NA
MWOB-1	Work with organizations, such as the Chamber and the Black Business Alliance, to expand diversity, equity, and inclusion programs that are supported with grassroots community engagement			
MWOB-2	Explore successful programs for supporting minority and women-owned businesses in surrounding communities to implement in Wake Forest			
MWOB-3	Explore regional, state, and federal grants available for minority and women businesses, such as grants from the National Institute of Economic Development and Carolina Community Impact			
MWOB-4	Support informational sessions and/or provide educational resources to employers on how they can establish equitable work environments and policies within their businesses			
POLICIES FOR SETBACKS		YES	NO	NA
SB-1	Incentivize businesses to situate new buildings at or near the property line to improve walkability, such as by requiring more landscaping if parking lots are located in front of buildings rather than to the rear/side			
SB-2	Promote consistency in setbacks within commercial and residential areas to form desirable continuity in the streetwall, or the facades of buildings facing the street			
SB-3	Encourage outparcel development with 360 architecture to “hold the corner” of commercial corridor development			
SB-4	Ensure adequate setbacks of industrial or other high intensity uses to reduce potential sound or visual impacts on adjacent lower intensity uses			
SB-5	Allow for flexibility in setbacks in Downtown where existing conditions prevent a consistent streetwall, while maintaining a close interface with the street (e.g., utility, landscaping, and/or topography challenges)			
POLICIES FOR PARKING LOTS		YES	NO	NA
PL-1	For existing front-loaded surface parking lots, encourage property owners to improve their character with perimeter and interior landscaping, and/or decorative walls and fencing			
PL-2	Require off-street parking to be located to the side or rear of the primary building			
PL-3	Encourage shared parking agreements where neighboring uses with different peak parking demand times can use the same parking lot, reducing the need for additional parking lots			
PL-4	Reevaluate minimum parking standards and consider implementing maximum parking standards to reduce excessive requirements			
PL-5	Monitor parking supply and strategically encourage structured or underground parking in higher density areas if needed, such as in Downtown, TOD, and activity center areas, to reduce the amount of land dedicated to surface parking			
PL-6	Consider offering incentives for structured parking, such as density bonuses, allowable lot coverage increases, and height limit increases.			

Community Plan Consistency Grid				
PL-7	Encourage the integration of structured parking into multifamily buildings to minimize surface parking lots			
PL-8	Encourage North Carolina Department of Environmental Quality's (NCDEQ) Stormwater Nitrogen and Phosphorus (SNAP) nutrient-reducing practices, such as permeable surfaces, that allow water infiltration in parking lots to improve stormwater drainage and water quality			
PL-9	Encourage the provision of pedestrian walkways in parking lots to enhance connectivity and safety to businesses			
POLICIES FOR SCREENING & BUFFERING		YES	NO	NA
SB-1	Ensure sufficient screening and buffering of industrial and commercial uses next to residential uses to minimize potential adverse impacts, such as in the Unicon Drive area			
SB-2	Encourage new development to preserve existing wooded areas along the perimeter of sites to provide natural buffering			
SB-3	Encourage screening of utility, loading, outdoor storage, and trash disposal areas that are visible from the right-of-way and adjacent development			
SB-4	Promote the use of setbacks for walls and fences that allow for plantings between the property line and the right-of-way and adjacent development			
POLICIES FOR COMMUNITY CHARACTER		YES	NO	NA
CC-1	Preserve vistas and view corridors that contribute to the economic and aesthetic value of Wake Forest, such as the church steeple at Southeastern Baptist Theological Seminary, S White Street in Downtown, and N Main Street in the Wake Forest Local Historic District			
CC-2	Curate public outdoor spaces for important monuments and artworks to showcase them as anchors and entry points to neighborhoods			
CC-3	Leverage historic structures, events, and people to create a sense of place through placemaking and branding			
CC-4	Ensure new development is contextual to the existing character of the area in terms of scale, massing, setback, fenestration, and design features (porches, storefronts, etc.)			
CC-5	Encourage developers to incorporate landscaping to beautify neighborhoods and commercial areas, such as landscaped medians and roundabouts.			
CC-6	Incorporate landscaping and gateway features into public rights-of-way, such as landscaped streetscapes, green infrastructure, and public promenades			
CC-7	Emphasize quality development along highly visible thoroughfares in the Town to reinforce its positive image			
CC-8	In accordance with the Land Use Plan, ensure incompatible, high intensity uses are directed away from low intensity residential areas			
CC-9	Continue to provide quality municipal services for the maintenance and upkeep of neighborhoods, such as street cleaning, snow removal, and trash disposal services			
CC-10	Work with NCDOT to identify areas for roadway enhancements			
CC-11	Refer to the Public Art Vision Plan for guidance when public art is being proposed in private development			
CC-12	Work with developers to improve the character of retaining walls, such as by incorporating public art or tiering the walls to reduce their visual impact			
POLICIES FOR UTILITY LINES		YES	NO	NA
UL-1	Create a master plan for burying utility lines with community involvement to identify priority areas for conversion			

Community Plan Consistency Grid				
UL-2	Ensure major Town entrances and gateway corridors and highly visible, pedestrian-oriented areas are prioritized for conversion			
UL-3	Consider trenching utilities as capital improvements are made in the right-of-way for all areas of the Town			
UL-4	Investigate partnering with private developers to install conduit for fiber and/or burying utility lines in priority conversion areas			
UL-5	Explore partnerships with private developers for boring and burying additional conduit along main roadways			
UL-6	Consider and install conduit with greenway project construction.			
POLICIES FOR HISTORIC PRESERVATION		YES	NO	NA
HP-1	Work with the Historic Preservation Commission (HPC) and the Planning Department to continue to implement the 2019 Historic Property Handbook and Design Standards and continue to preserve existing and new historic landmarks			
HP-2	Continue to enforce the Historic Preservation Ordinance for the Wake Forest Local Historic District and local historic landmarks			
HP-3	Promote State and Federal Tax Incentives for qualified rehabilitation projects for properties listed individually or as contributing historic properties in the National Register of Historic Places			
HP-4	Ensure development surrounding and within historic districts is sensitive to the historic context of the neighborhood			
HP-5	Encourage adaptive reuse, restoration, and repurposing of historic structures to preserve Wake Forest's history			
HP-6	Continue to enforce the Demolition of Historic Structures Ordinance for the protection of all historic properties in Wake Forest			
HP-7	Investigate the adoption of new local historic districts or character historic overlay districts to preserve Wake Forest's historic character			
POLICIES FOR COMMUNITY FACILITIES		YES	NO	NA
CF-1	Expand Town facilities concurrently with new growth			
CF-2	Annually review the Town's Work Management Plan, Staffing, and Budget section to reflect current needs and priorities			
CF-3	Work with the Wake Forest Parks, Recreation, and Cultural Resources Department to identify strategies to close gaps in park service areas, such as west of Capital Boulevard and the southern and eastern portion of Town			
CF-4	Work with the Wake Forest Parks, Recreation, and Cultural Resources Department to expand equity in the quality of public park facilities and programming			
CF-5	Explore green infrastructure options that also beautify spaces, like bioswales and planters			
CF-6	Continue to work with regional educational entities to provide support as they seek new facility locations or expansion with growth			
CF-7	Coordinate with regional educational entities to ensure increased equity in educational facilities across the community			
CF-8	Coordinate with the Police and Fire Departments to ensure response times are sufficient for all areas of town with growth			
CF-9	Consider emerging best practices for community safety, such as mental health crisis response teams			

Community Plan Consistency Grid				
CF-10	Promote and incorporate sustainable building practices into community facilities, setting a precedent for private developers to implement			
CF-11	Coordinate with regional healthcare providers to explore opportunities to locate a full service hospital or regional medical facilities in the Town			
CF-12	Evaluate existing streets and explore UDO updates to address traffic congestion, traffic speed, reduce collisions, and improve safety conditions for all modes of transportation			
CF-13	Regularly update the Town Pavement Management System program			
POLICIES FOR PUBLIC TRANSIT		YES	NO	NA
PT-1	Continue to work with transit partners to consider more frequent service and route network expansions to key locations to improve rider experience and attract more usage of mass transit			
PT-2	Coordinate with property owners, private developers, and transit partners to set aside land for transit stops at appropriate locations. The Town should obtain a transit easement for these locations and construct and maintain quality bus shelter infrastructure			
PT-3	Work with GoRaleigh and GoTriangle to construct smart bus shelters, or sustainable shelters that incorporate elements like interactive screens with live timetables, smart lighting, solar panels, and bike lock stations			
PT-4	Explore incorporating public art into bus shelters			
PT-5	Continue to evaluate and coordinate Park and Ride locations with transit partners			
PT-6	Explore best long term transit options such as fixed or microtransit			
POLICIES FOR CAPITAL BOULEVARD		YES	NO	NA
CB-1	Continue to work closely with NCDOT to implement the project and promote commercial growth in accordance with the Land Use Plan			
CB-2	Continue advocating for improvements along the corridor to assist in improving the quality of life for Wake Forest residents, businesses, and property owners			
POLICIES FOR STREET CONNECTIVITY		YES	NO	NA
SC-1	Promote short blocks of less than 600 linear feet between intersections of local roads to improve walkability			
SC-2	Avoid dead-ends, cul-de-sacs, and T-intersections in places where four-way intersections can be aligned			
SC-3	Study the appropriateness of traffic circles at four-way intersections to ease congestion and improve safety			
POLICIES FOR SIDEWALKS & MULTI-USE PATHS		YES	NO	NA
SP-1	Update the CTP to include an inventory of sidewalks in addition to multi-use paths and establish project priorities, private-public funding, and time frames for closing gaps in the network			
SP-2	Update the CTP to identify priority areas for high visibility crosswalks, bulb outs, refuge islands, rectangular rapid flashing beacons, and other pedestrian improvements			
SP-3	Work with Public Works to identify crosswalk ramps that are not ADA compliant and prioritize upgrades			
SP-4	In coordination with roadway improvements, upgrade aging sidewalks or install new sidewalks if none exist			

Community Plan Consistency Grid				
SP-5	Promote sidewalk, multi-use path, or trail connectivity between residential subdivisions and nonresidential development to improve pedestrian and bicycle connectivity			
SP-6	Continue to ensure all new residential development provides sidewalks on both sides of the street			
SP-7	Encourage multi-use paths to be provided along the main road in developments			
SP-8	Ensure multifamily and commercial developments include strong pedestrian networks within and between their sites			
POLICIES FOR BIKEWAYS, GREENWAYS & TRAILS		YES	NO	NA
BGT-1	Identify trail head locations as the greenway and trail network continues to expand			
BGT-2	Explore opportunities along greenways to add amenities (i.e. water fountains, seating /rest areas, pocket parks, public art, and fix it stations) and programming with the Parks, Recreation, and Cultural Resources Department or other organizations like StoryWalks			
BGT-3	Encourage development along greenways to incorporate greenway access into the site, particularly for uses attractive to trail users (i.e. restaurant, cafes, and bars)			
POLICIES FOR LOCAL FOOD SYSTEMS		YES	NO	NA
LFS-1	Continue to support the Northern Community Food Security Team and together explore other locations for community food hubs within the Town			
LFS-2	Partner with local food cooperatives and regional food networks, such as the Capital Area Food Network, to address food insecurity in the community			
LFS-3	Encourage regenerative practices, such as use of organic fertilizers, crop rotation, and crop variation for healthy soil			
LFS-4	Conduct a meal gap survey to better assess the immediate and long term needs in the community			
LFS-5	Evaluate the economic impact of local food systems in the community to encourage localized marketplaces for food producers			
LFS-6	Explore updates to the UDO that would promote urban agriculture and repurposing of vacant or underutilized lots for such uses			
POLICIES FOR CONSERVATION DESIGN		YES	NO	NA
CD-1	Encourage conservation design in the UDO's subdivision development regulations, particularly for areas within watershed protection areas			
CD-2	Explore incentives for promoting conservation design, such as density bonuses to allow for comparable number of housing units but greater preserved green space within the site			
CD-3	Encourage developers to enhance preserved green spaces as accessible amenities for residents, such as trails and outdoor seating			
POLICIES FOR GREEN SPACE PRESERVATION		YES	NO	NA
GSP-1	Prioritize higher density redevelopment and infill development within already developed areas to avoid premature development in long term growth areas and reduce greenfield development			
GSP-2	Work with private developers to preserve significant natural assets within sites, such as streams, steep slopes, unique geological formations, wetlands, and mature stands of trees, which can be incorporated as development amenities			

Community Plan Consistency Grid				
GSP-3	Continue to identify and strategically acquire environmentally sensitive land to preserve as dedicated conservation areas and publicly accessible open space			
GSP-4	Explore incentives to promote conservation design in future development, such as density bonuses, to promote clusters of taller structures that preserve natural areas of the site			
GSP-5	Explore strategies to further promote green space preservation within the updated UDO, such as increasing set aside requirements, and evaluate what is credited as open space			
GSP-6	Explore strategies to further protect wildlife and environmentally sensitive areas in the UDO			
POLICIES FOR TREE CANOPY		YES	NO	NA
TC-1	Continue to support the Town in administering the Urban Forestry Program and planting, preserving, and maintaining trees on public properties and rights-of-way			
TC-2	Explore updates to the UDO that could further promote tree preservation and replacement in new developments			
TC-3	Review existing incentives and consider additional incentives for private developers to promote tree preservation above what is required by the UDO			
TC-4	Explore ways to increase the number of trees required in parking lots during the update to the UDO, such as requiring an island every 20 parking spaces or decreasing the minimum distance a parking space can be from a tree			
TC-5	Ensure public and private tree plantings and xeriscaping are made up of native plant species that are adapted to local environmental conditions and require less irrigation			
TC-6	Coordinate efforts to influence State regulations related to the expansion of tree preservation standards			
POLICIES FOR SUSTAINABLE DEVELOPMENT		YES	NO	NA
SD-1	Encourage private developers to incorporate green building, LID, and green infrastructure practices in future developments			
SD-2	Incorporate green infrastructure into public streetscapes, prioritizing pedestrian-oriented areas like Downtown, TOD, and Neighborhood Commercial areas			
SD-3	Continue to incorporate sustainable design best practices into Town-owned infrastructure and community facilities, striving to incorporate LEED practices into future facilities			
SD-4	Use the Environmental Protection Agency's (EPA) "Revising Local Codes to Facilitate Low Impact Development" guide to help identify regulations within the UDO that discourage LID practices			
SD-5	Evaluate potential rainwater collection programs and composting programs			
SD-6	Explore an incentive program to encourage development to provide stormwater when lots are exempt from stormwater requirements			
SD-7	Update the Manual of Specifications, Standards and Design to reference green infrastructure design			
SD-8	Explore decommissioned rights-of-way as potential stormwater routes			
SD-9	Support the use of attractive, safe, and sustainable street furniture and infrastructure, such as solar streetlights, and LED traffic lights			
SD-10	Expand the electric vehicle (EV) charging network by requiring the installation of charging stations, or the infrastructure needed to accommodate future charging stations, in all new parking lots, especially parking lots of multifamily and large scale developments, and increasing supply of public charging stations			

Community Plan Consistency Grid				
SD-11	Promote adaptive reuse over redevelopment for structures that are structurally sound, feature desirable built form, and/or are historically significant. This includes creating an online inventory of buildings available for adaptive reuse			
SD-12	Investigate developing a solar energy ordinance and enrolling in the SolSmart program, a national designation program funded by the US Department of Energy charged with making solar power faster, easier, and more affordable			
SD-13	Explore ways to incentivize renewable energy and passive solar design in the Town's development standards. SolSmart's Solar Energy Toolkit can be used as resource for better promoting solar panels within the code			
SD-14	Continue partnership with Raleigh to encourage homeowners to incorporate practices for water conservation			
POLICIES FOR TOURISM		YES	NO	NA
T-1	Grow the Town's art community and reputation as a regional arts destination with a Downtown focus			
T-2	Explore the potential of constructing a recreational destination facility with a regional draw			
T-3	Develop annual Tourism Economic Impact Reports to help quantify progress made in Wake Forest's tourism sector and identify trends, issues, and opportunities that can help Town staff prioritize future investments			
T-4	Support the Wake Forest Area Chamber to create and market a local visitor's center as a public resource hub for the Town's attractions, events, and businesses for visitors			
T-5	Leverage Wake County's Room Occupancy Tax to build, finance, and create new establishments or run events related to tourism, allowing the Town to capitalize on its success in drawing hotel occupants			
T-6	Create a community-wide wayfinding plan to improve sense of place and signage that directs visitors and residents to Town destinations			
T-7	Continue to support Wake Forest Downtown Inc. (a Main Street America accredited program) in meeting the National Accreditation Standards of Performance as outlined by the National Main Street Center			
T-8	Continue to participate in the NC Main to Main Trail program, a network that connects the State's Main Street America communities, and leverage this designation in the Town's marketing strategy			
T-9	Investigate hiring consultants to provide a comprehensive evaluation of Town events and provide recommendations for improved programs			
T-10	Explore the creation of a social district, where customers can carry and consume food and drinks purchased from businesses outside in a designated zone			
POLICIES FOR GATEWAYS		YES	NO	NA
GW-1	Create a Gateway Plan to identify and prioritize sites for gateway features and establish design standards. Ensure the Plan works in synergy with the Town's Wayfinding Plan.			
GW-2	Improve roadway infrastructure along key gateway routes to enhance their character and multimodal connectivity.			
POLICIES FOR DOWNTOWN WAKE FOREST		YES	NO	NA
DWF-1	Evaluate existing zoning regulations around density in appropriate locations to balance Downtown's development potential with preserving its historic character			

Community Plan Consistency Grid				
DWF-2	Identify strategies to fill vacant buildings Downtown that promote an entrepreneurial and small-business culture			
DWF-3	Identify strategies to attract families and younger populations to Downtown with inviting public spaces, entertainment, and destinations for all ages			
DWF-4	Provide guidelines for how buildings should be orientated to support pedestrian-friendly environments			
DWF-5	Reassess parking demand and supply with consideration for a new parking garage(s) to minimize surface parking lots			
DWF-6	Identify strategies to create an “experience-based” Downtown retail environment with unique local businesses and a pedestrian-oriented environment			
DWF-7	Reassess strategies to improve gateways and wayfinding to and within Downtown to better direct people and create a distinct sense of place			
DWF-8	Identify opportunities for Downtown events and public gathering spaces to bring the community together, such as live outdoor events and festivals			

MEMORANDUM

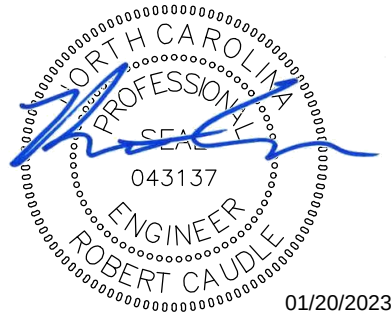
To: Town of Wake Forest
CC: Brendie Vega
From: Rob Caudle
Date: 01.20.2023
Project: 4Rivers
Subject: Parking Generation Estimates

WithersRavenel staff used a parking generation coefficient associated with the Institute of Transportation Engineers' 5th Edition of the Parking Generation Manual (2019). Staff used the coefficient for mini-warehouse (ITE Code 151), which is described as being typically referred to as "self-storage" facilities. With an initial site design of approximately 110,000 square feet, the following peak parking estimate was calculated:

Peak Parking Rate (0.10 spaces per 1,000 sq. ft.): 11.00 peak parking spaces

Respectfully,

Robert Caudle, PE



SITE MASTER PLAN

4RIVERS - WAKE FOREST

SELF STORAGE

SITE MASTER PLAN

RZ-23-01

SURVEY BENCHMARK

BENCHMARK IS LOCAL TO SITE.
HORIZONTAL DATUM BASED ON NC GRID NAD 83 (2011).
VERTICAL DATUM BASED ON NAVD 88.

SITE DATA TABLE

DEVELOPMENT NAME	4RIVERS - WAKE FOREST
PROJECT NAME	SELF STORAGE
TOWN OF WAKE FOREST PROJECT NO.	RZ-23-01
SITE ADDRESS	300 JONES DAIRY ROAD, WAKE FOREST, NC
OWNER/DEVELOPER	4 RIVERS PROPERTY GROUP
WAKE COUNTY PARCEL NO. & PIN	0325088 & 1850066925
CURRENT ZONING	GR10
PROPOSED ZONING	HB-CD
GROWTH STRATEGY DESIGNATION	N/A
OVERLAY DISTRICT	DR. CALVIN JONES HIGHWAY (PARTIAL)
WATER SUPPLY WATERSHED PROTECTION OVERLAY	N/A (NOT LOCATED IN A DESIGNATED OVERLAY DISTRICT)
SPECIAL FLOOD HAZARD AREA DESIGNATION	ZONE AE (FEMA FIRM 3720185000K)
PARCEL ACREAGE	2.64 AC
RIGHT-OF-WAY ACREAGE	N/A
EXISTING USE	VACANT
PROPOSED USE	STORAGE - SELF SERVICE
EXISTING LOT IMPERVIOUS COVERAGE	± 0.00 AC (0%)
PROPOSED LOT IMPERVIOUS COVERAGE	± 0.96 AC (36%)
PROPOSED DENUDED AREA	± 1.71 AC
MINIMUM BUILDING SETBACKS:	
FRONT	30 FT
SIDE	30 FT
REAR	30 FT
MINIMUM LOT WIDTH:	
FRONT	150 FT
PROVIDED FRONTAGE	450 FT
BUILDING INFORMATION:	
PROPOSED NUMBER OF BUILDINGS	1
PROPOSED BUILDING SF	~110,500 SF (INCLUDING ~1,000 SF OF LOBBY)
MAXIMUM BUILDING HEIGHT	3 STORIES (PLUS BASEMENT LEVEL)
PROPOSED BUILDING HEIGHT	3 STORIES (PLUS BASEMENT LEVEL)
PARKING:	
REQUIRED PARKING	11 SPACES (PER PROPOSED ZONING CONDITION)
PROVIDED PARKING	12 SPACES (INCLUDING 1 ADA VAN SPACE)
BIKE PARKING:	
MINIMUM REQUIRED PARKING	2 SPACES (REFER TO SHEET C2.0)
PROPOSED PARKING	2 SPACES

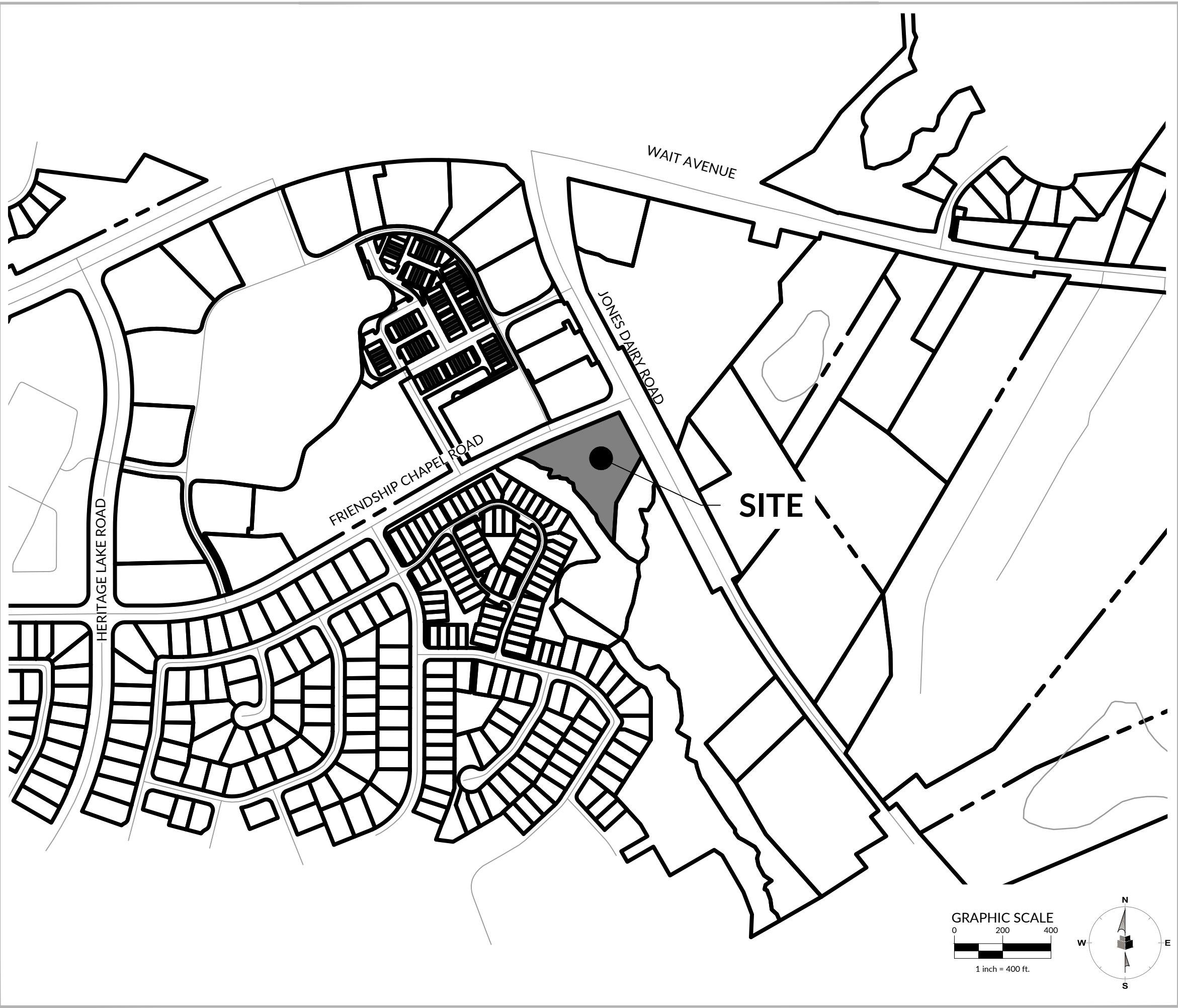
INFRASTRUCTURE DATA TABLE

PUBLIC R/W [LF]	NONE
PUBLIC WATER MAIN [LF]	0
PUBLIC SEWER MAIN [LF]	0
PUBLIC STORM DRAINAGE [LF]	NONE (ALL PROPOSED STORM IS PRIVATE)
PUBLIC GREENWAY [LF]	0

300 JONES DAIRY ROAD | WAKE FOREST, NC

CONDITIONAL DISTRICT REZONING:
1ST SUBMITTAL: JANUARY 20, 2023
2ND SUBMITTAL: MARCH 10, 2023
3RD SUBMITTAL: APRIL 21, 2023
4TH SUBMITTAL: JUNE 6, 2023
FINAL REZONING PLANS: JULY 24, 2023

VICINITY MAP



INDEX OF SHEETS

NUMBER	TITLE
C0.0	COVER
C1.0	OVERALL EXISTING CONDITIONS PLAN
C1.1	OVERALL DEMOLITION PLAN
C2.0	OVERALL SITE PLAN
C3.0	OVERALL UTILITIES PLAN
C4.0	OVERALL GRADING AND DRAINAGE PLAN
L1.0	OVERALL LANDSCAPE PLAN
L2.0	LANDSCAPE DETAILS
SL1.0	OVERALL LIGHTING PLAN
TP1.0	TRUCK PATH - SINGLE UNIT TRUCK
TP2.0	TRUCK PATH - GARBAGE TRUCK
TP3.0	TRUCK PATH - FIRE TRUCK

SITE LEGEND

EXISTING		PROPOSED
	FIRE HYDRANT	
	POWER POLE	
	IRON PIPE SET	
	IRON PIPE FOUND	
	CALCULATED POINT	
	WATER VALVE	
	CATCH BASIN	
	SANITARY MANHOLE	
	BLOW OFF VALVE	
	PROJECT BOUNDARY LINE	
	ADJACENT PROPERTY LINE	
	RIGHT OF WAY	
	OVERHEAD ELECTRIC LINE	
	SANITARY SEWER LINE	
	STORM DRAINAGE LINE	
	WATER LINE	
	MAJOR CONTOUR LINE	
	MINOR CONTOUR LINE	

PROPOSED ZONING CONDITIONS

NOTE: REFER TO ZONING CONDITION MEMO, SUBMITTED UNDER A SEPARATE COVER, FOR MORE INFORMATION REGARDING ZONING CONDITIONS PROPOSED WITH THIS SITE MASTER PLAN.

- THE CORRESPONDING SITE MASTER PLAN IS A CONDITION OF THE REZONING. AMENDMENTS OF THE SITE MASTER PLAN SHALL REQUIRE A REZONING AMENDMENT UNLESS THE ADMINISTRATOR FINDS THE MODIFICATION TO BE MINOR AND IN KEEPING WITH THE SPIRIT AND INTENT OF THE ADOPTED SITE MASTER PLAN.
- THE LANDOWNER SHALL COMPLETE ALL IMPROVEMENTS TO THE ADJACENT ROADWAYS AND ROADWAY FRONTAGES AS SHOWN ON THE CORRESPONDING SITE MASTER PLAN AND AS IDENTIFIED IN THE TOWN OF WAKE FOREST COMPREHENSIVE TRANSPORTATION PLAN. SUCH IMPROVEMENTS SHALL BE COMPLETED FROM THE CENTER OF THE ROADWAY TO THE SITE PROPERTY LINE, OR, WHERE APPROVED BY THE TOWN'S PLANNING AND ENGINEERING DEPARTMENTS, THE LANDOWNER MAY SUBMIT A FEE TO THE TOWN IN LIEU OF COMPLETING ALL OR PART OF THE IMPROVEMENTS.
- THE OFF-STREET PARKING REQUIREMENTS IN UDO SECTION 9.4.B SHALL BE MODIFIED TO ALLOW A MINIMUM OF ELEVEN (11) OFF-STREET PARKING SPACES.
- REQUIRED OFF-STREET LOADING SPACES ARE EXEMPT FROM THE STANDARDS OF UDO SECTIONS 9.4.5.C(1), (2), (3), AND (5).
- BUILDING ENTRANCES ADJACENT TO OFF-STREET LOADING SPACES SHALL PROVIDE ACCESS TO THE BUILDING THROUGH SLIDING GLASS DOORS.
- THE DEVELOPMENT SHALL BE EXEMPT FROM THE PEDESTRIAN/BICYCLE ACCESSWAY REQUIREMENTS IN UDO SECTION 6.5.3.A.

RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD
DATE _____

APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS
DATE _____

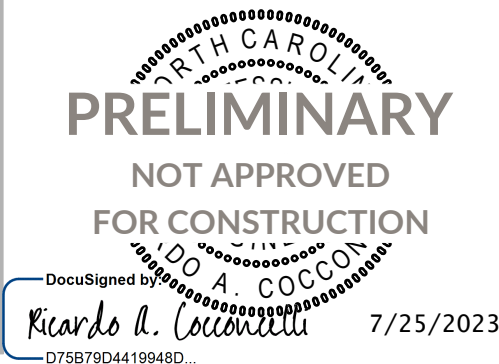
CONTACT LIST:

LANDSCAPE ARCHITECT
Daniel Whatley, PLA
WithersRavenel
137 S Wilmington Street, Suite 200
Raleigh, NC 27601
919-535-5200
dwhatley@withersravenel.com

CIVIL ENGINEER
Ricardo Coconcilli, PE
WithersRavenel
115 MacKanan Drive
Cary, NC 27511
919-469-3340
rcoconcilli@withersravenel.com

DEVELOPER
Hunter Dawkins
4 Rivers Property Group
1200 E Morehead St, Suite 280,
Charlotte, NC 28204
704-281-8959
jake@prestondew.com

ARCHITECT
Alvah Davis
McMillan Pazdan Smith Architecture
864-398-5268
adavis@mcmillanpazdansmith.com



PREPARED BY:

WithersRavenel
115 MacKanan Drive | Cary, NC 27511
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com



DEVELOPER:

4RIVERS PROPERTY GROUP

1200 EAST MOREHEAD STREET, SUITE 280
CHARLOTTE, NC 28204
PHONE #: 704-281-8959
ATTENTION: HUNTER DAWKINS



SITE MASTER PLAN
4RIVERS - WAKE FOREST
SELF STORAGE
SITE MASTER PLAN
WR PROJECT NO.09221052
TOWN OF WAKE FOREST
MUNI PRO NO-RZ-23-01
01/20/2023

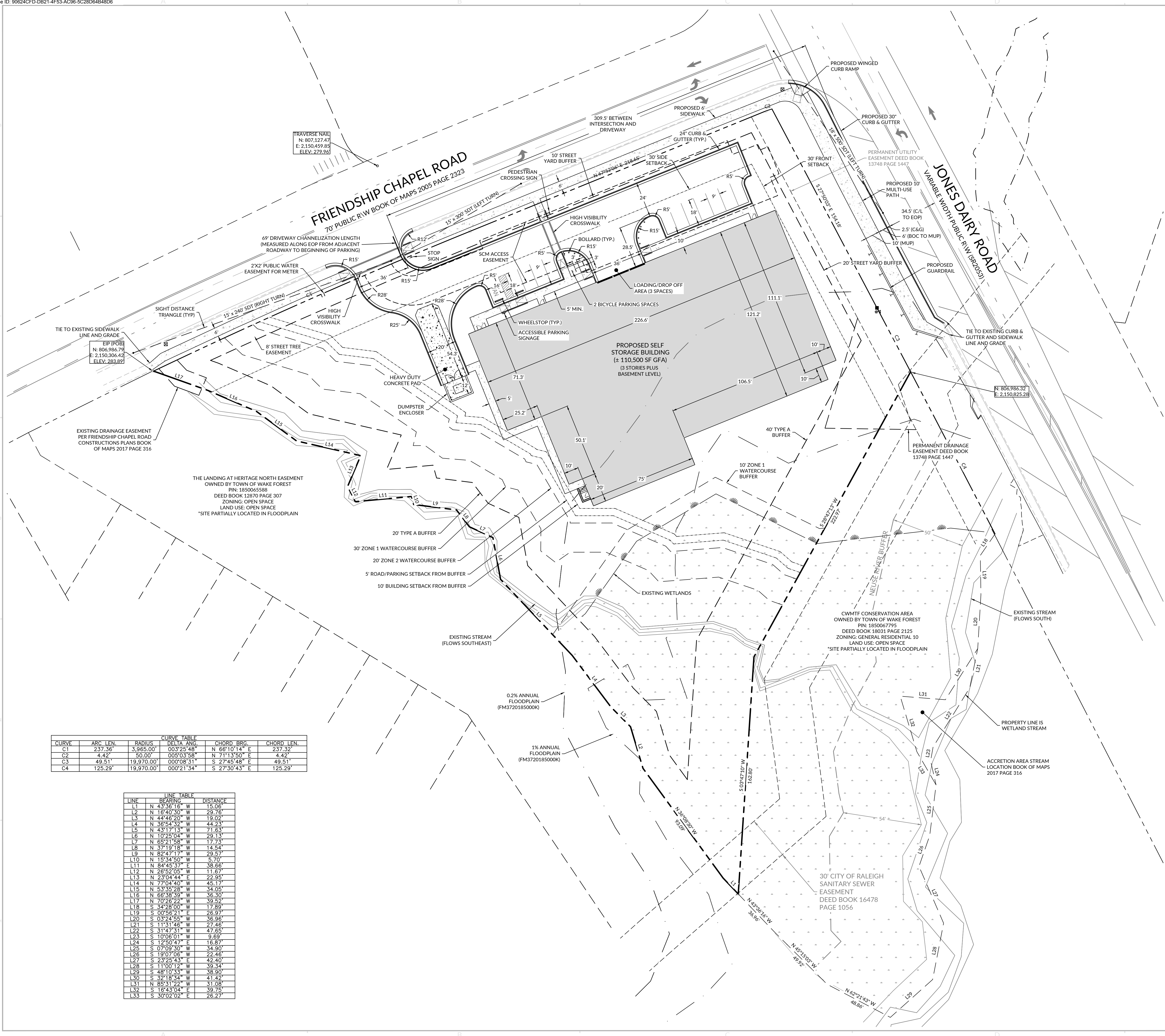
1. NO NGS MONUMENT FOUND WITHIN 2,000 FEET OF THE SITE
2. THE FOLLOWING INFORMATION WAS USED TO OBTAIN NC GRID NAD 83 (2011), NAVD 88 STATE PLANE COORDINATES (SPC) FOR THIS PROJECT:
 - 2.1. CLASS OF SURVEY: URBAN LAND SURVEYS (CLASS A)
 - 2.2. POSITIONAL ACCURACY: 0.03" (H), 0.07" (V)
 - 2.3. GPS FIELD PROCEDURE: REAL TIME
 - 2.4. DATE OF SURVEY: 09/14/2022
 - 2.5. DATUM/EPOCH: NAD 83 (2011), EPOCH 2010.00
 - 2.6. PUBLISHED DATE/FIXED CONTROL USED: VRS, NCSD
 - 2.7. GEIOD MODEL: GEOID 19
 - 2.8. COMBINED GRID FACTOR: 0.999941829
 - 2.9. UNITS: U.S. SURVEY FEET
 - 2.10. GRID/GROUND POINT: (YN) 806,796.794 (X) 2,150,306.42
3. ALL DISTANCES ARE HORIZONTAL (GROUND DISTANCE) IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
4. ALL AREAS DERIVED BY THE COORDINATE COMPUTATION METHOD.
5. PROPERTY SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS PLAT IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND HAS BEEN PREPARED IN CONFORMITY WITH THE SURVEYING STANDARDS, C.S. 42-30, AND REQUIREMENTS OF LAW, BUT A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING CORRECT OWNERSHIP, WIDTH, AND LOCATION OF EASEMENTS AND OTHER TITLE QUESTIONS REVEALED BY TITLE EXAMINATION.
6. LINES NOT SURVEYED ARE SHOWN AS BROKEN LINES FROM INFORMATION REFERENCED ON THE FACE OF THIS PLAT.
7. SUBJECT PROPERTY IS LOCATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FLOOD INSURANCE RATE MAP 37020184000C DATED JULY 19, 2022.
8. LOCATION OF UTILITIES, WHETHER PUBLIC OR PRIVATE, IS BASED UPON FIELD LOCATION OF VISIBLE APPURTENANCES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATION PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. WITHERSVARAVENL CANNOT ASSUME RESPONSIBILITY FOR MISIDENTIFICATION OR OMISSION OF UNDERGROUND UTILITIES.
9. PER NCGS SECTION 70-29 DISCOVERY OF REMAINS AND NOTIFICATIONS OF AUTHORITIES, AND INADVERTENT DISCOVERY OF MARKER OR UNMARKED GRAVES OR HUMAN REMAINS REQUIRES THAT WORK IMMEDIATELY STOP AND THE PROCESS OUTLINED IN NCGS SECTION 70-29 BE FOLLOWED.

DATE _____

INITIAL PLAN DATE: 01/20/2023
 REVISIONS:
 1 - 03/10/2023
 TOWN OF WAKE FOREST COMMENTS
 2 - 04/21/2023
 TOWN OF WAKE FOREST COMMENTS
 3 - 06/06/2023
 TOWN OF WAKE FOREST COMMENTS

C1.0

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CURVE TABLE					
CURVE	ARC LEN.	RADIUS	DELTA ANG.	CHORD BRG.	CHORD LEN.
C1	237.36	3,965.00'	003°25'48"	N 66°10'14" E	237.32
C2	4.42'	50.00'	005°03'58"	N 71°13'50" E	4.42'
C3	49.51'	19,970.00'	000°08'31"	S 27°45'48" E	49.51'
C4	125.29'	19,970.00'	000°21'34"	S 27°30'43" E	125.29'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 43°36'16" W	15.06'
L2	N 16°40'30" W	28.76'
L3	N 44°46'20" W	19.02'
L4	N 36°54'32" W	44.23'
L5	N 43°17'13" W	71.63'
L6	N 10°25'04" W	29.13'
L7	N 65°21'58" W	17.73'
L8	N 37°19'18" W	14.54'
L9	N 82°47'17" W	29.57'
L10	N 15°34'50" W	5.70'
L11	N 84°45'37" E	38.66'
L12	N 26°52'03" W	11.67'
L13	N 23°04'44" E	22.85'
L14	N 77°04'40" W	45.17'
L15	N 53°35'28" W	34.05'
L16	N 66°38'39" W	36.30'
L17	N 70°26'22" W	39.52'
L18	S 34°28'00" W	17.89'
L19	S 00°56'21" E	26.87'
L20	S 03°24'55" W	36.96'
L21	S 11°31'46" W	27.46'
L22	S 31°47'31" W	47.65'
L23	S 10°06'01" W	9.69'
L24	S 12°50'47" E	16.87'
L25	S 07°09'30" W	34.90'
L26	S 19°07'06" W	22.46'
L27	S 23°25'43" E	42.40'
L28	S 11°00'12" W	39.34'
L29	S 48°10'33" W	38.90'
L30	S 32°18'34" W	41.42'
L31	N 85°31'22" W	31.08'
L32	S 16°43'04" E	39.75'
L33	S 30°02'02" E	26.27'

SITE PLAN NOTES	
1.	PER MAP 4-6 () FUTURE GREENWAY NETWORK, LOCATED IN THE TOWN OF WAKE FOREST'S COMPREHENSIVE TRANSPORTATION PLAN (CTP), GREENWAY TRAILS ARE PROPOSED ON THE TOWN-OWNED PROPERTIES ADJACENT TO THE SITE. THE TRAIL CONFIGURATION HAS NOT YET BEEN ESTABLISHED, BUT IT IS ANTICIPATED THAT THE GREENWAY TRAILS WILL RUN PARALLEL TO THE SOUTHEASTERN AND SOUTHWESTERN PROPERTY LINES. PLEASE REFER TO CHAPTER 4 OF THE CTP FOR MORE INFORMATION REGARDING THESE FUTURE GREENWAY TRAILS.
2.	APPLICABLE DIMENSIONS SHOWN HEREIN ARE MEASURED TO THE FACE OF CURB.

SITE DATA TABLE	
DEVELOPMENT NAME	4RIVERS - WAKE FOREST
PROJECT NAME	SELF STORAGE
TOWN OF WAKE FOREST PROJ. NO.	RZ-23-01
SITE ADDRESS	300 JONES DAIRY ROAD WAKE FOREST, NC
DEVELOPER	4RIVERS PROPERTY GROUP
OWNER	FRANKLIN VILLAGE LLC
WAKE COUNTY PARCEL NO. & PIN	0325088 & 1850066925
CURRENT ZONING	GR10
PROPOSED ZONING	HB-CD
OVERLAY DISTRICT	DR. CALVIN JONES HIGHWAY (PARTIAL)
GROWTH STRATEGY DESIGNATION	N/A
PARCEL ACREAGE	2.64 AC
NUMBER OF LOTS/LOTS PER PHASE	1
RIGHT-OF-WAY ACREAGE	N/A
EXISTING USE	VACANT
PROPOSED USE	STORAGE - SELF SERVICE
PROPOSED DENUDED AREA	± 1.71 AC
REQUIRED/PROPOSED OPEN & PARK SPACE	N/A (NOT REQUIRED)
EXISTING IMPERVIOUS COVERAGE:	±0 AC
PROPOSED IMPERVIOUS COVERAGE:	
TOTAL	± 42,000 SF (0.96 AC) 36% LOT COVERAGE
BUILDING	± 27,650 SF (0.64 AC)
PAVEMENT	± 12,350 SF (0.28 AC)
SIDEWALK	± 2,000 SF (0.05 AC)

MINIMUM BUILDING SETBACKS:	
FRONT	30 FT
SIDE	30 FT
REAR	30 FT

MINIMUM LOT WIDTH:	
FRONT	150 FT
PROVIDED FRONTAGE	450 FT

BUILDING INFORMATION:	
PROPOSED NUMBER OF BUILDINGS	1
PROPOSED BUILDING SF	± 110,500 SF (INCLUDING ± 1,000 SF OF LOBBY)
MAXIMUM BUILDING HEIGHT	3 STORIES (PLUS BASEMENT LEVEL)
PROPOSED BUILDING HEIGHT	3 STORIES (PLUS BASEMENT LEVEL)

PARKING:	
MINIMUM REQUIRED PARKING	11 SPACES (PER PROPOSED ZONING CONDITION)
PROVIDED PARKING	12 SPACES (INCLUDING 1 ADA SPACE)

BIKE PARKING:	
MINIMUM REQUIRED PARKING	2 SPACES (2 SPACES PER 50 PARKING SPACES)
PROVIDED BIKE PARKING	2 SPACES

LOADING SPACES:	
MINIMUM REQUIRED LOADING SPACES	3
PROVIDED LOADING SPACES	3

RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD

DATE _____

APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS

DATE _____

WithersRavenel

115 McKean Drive | Cary, NC 27511
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com

4 RIVERS

1200 EAST MOREHEAD STREET,
SUITE 200
CHARLOTTE, NC 28204

SITE MASTER PLAN

4RIVERS - WAKE FOREST
SELF STORAGE

300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY

PRELIMINARY
NOT APPROVED
FOR CONSTRUCTION

Ricardo A. Coccon
076879044196480

0 15 30
SCALE: 1 inch = 30 ft

INITIAL PLAN DATE: 01/20/2023
REVISIONS:
1 - 03/10/2023
TOWN OF WAKE FOREST COMMENTS
2 - 04/21/2023
TOWN OF WAKE FOREST COMMENTS
3 - 06/06/2023
TOWN OF WAKE FOREST COMMENTS
4 - 07/24/2023
TOWN OF WAKE FOREST COMMENTS

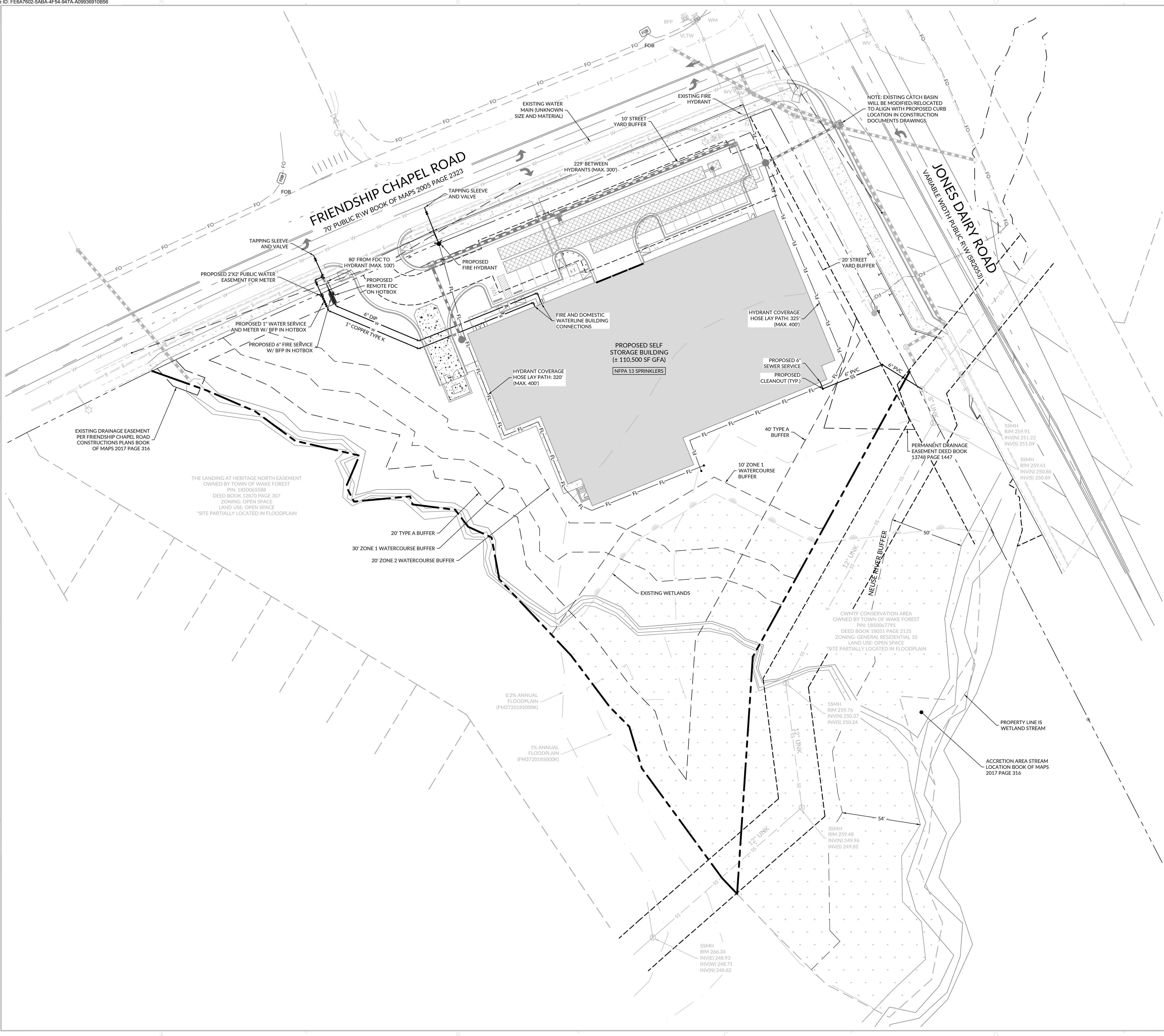
TOWNE PROJ. NUMBER RZ-23-01
WR JOB NUMBER 09221052
DRN: WR DGN: WR CKD: WR

OVERALL SITE PLAN

C2.0

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EST. 1983



COR APPENDIX D STANDARD UTILITY NOTES

- ALL STANDARD MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARD, DETAILS, & SPECIFICATIONS (REFERENCE CORPUS HANDBOOK, CURRENT EDITION).
- UTILITY SEPARATION REQUIREMENTS:
 - A DISTANCE OF 10' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10' IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS. THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
 - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS. MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED. SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUS DETAILS W-41.6.5-49).
 - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
- DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY.
- CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUS HANDBOOK PROCEDURE.
- INSTALL 1" COPPER WATER SERVICE WITH METERS LOCATED AT ROW OR WITHIN A 2'X2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE.
- INSTALL 6" PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAL FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI. BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
- NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUS FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT STEPHEN CALVERLEY AT (919) 996-2334 OR STEPHEN.CALVERLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST. THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. A CERTIFICATE OF COMPLIANCE SHALL ALSO BE OBTAINED FOR EACH DEVICE PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD

DATE _____

APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS

DATE _____

4RIVERS - WAKE FOREST
SELF STORAGE

SITE MASTER PLAN



INITIAL PLAN DATE: 01/20/2023
REVISIONS:
1 - 03/10/2023
TOWN OF WAKE FOREST COMMENTS
2 - 04/21/2023
TOWN OF WAKE FOREST COMMENTS
3 - 06/06/2023
TOWN OF WAKE FOREST COMMENTS

TOWNE PROJ. NUMBER RZ-23-01
WR JOB NUMBER 09221052
DRN: WR DGN: WR CKD: WR

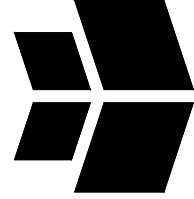
OVERALL UTILITIES
PLAN

C3.0



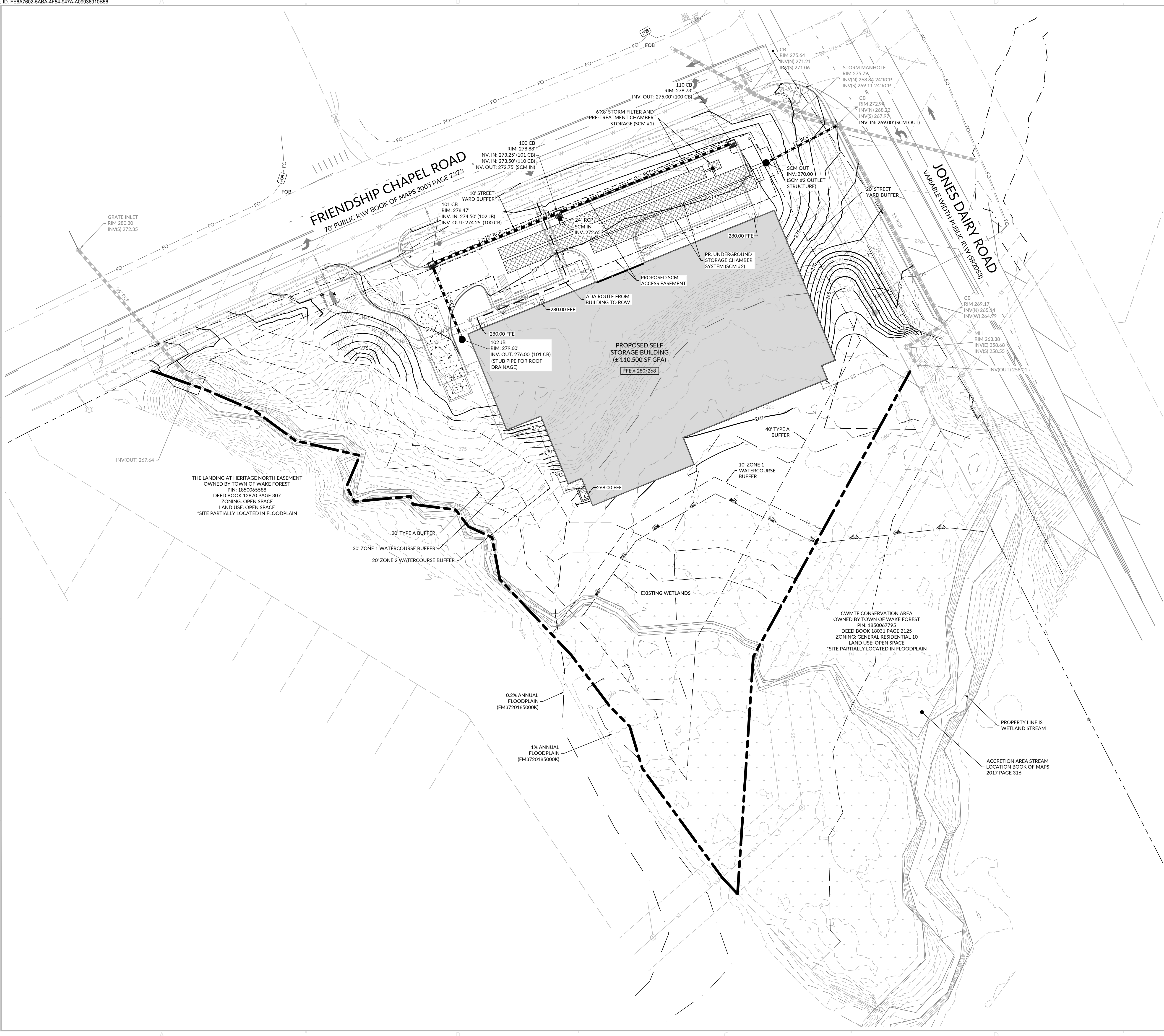
300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY

1200 EAST MOREHEAD STREET,
SUITE 200
CHARLOTTE, NC 28204



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Grading and Drainage Legend	
Symbol	Description
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR

- Grading and Drainage Notes**
- STORM DRAINAGE AND SCM DESIGN SHOWN HEREIN IS PRELIMINARY AND IS SUBJECT TO CHANGE PENDING FURTHER DESIGN.

RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD

DATE _____

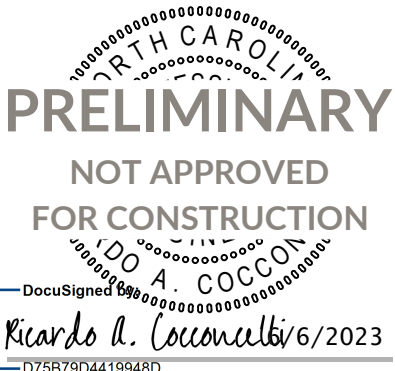
APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS

DATE _____

4RIVERS - WAKE FOREST SELF STORAGE

SITE MASTER PLAN

300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY



INITIAL PLAN DATE: 01/20/2023
REVISIONS:
1 - 03/10/2023
TOWN OF WAKE FOREST COMMENTS
2 - 04/21/2023
TOWN OF WAKE FOREST COMMENTS
3 - 06/06/2023
TOWN OF WAKE FOREST COMMENTS

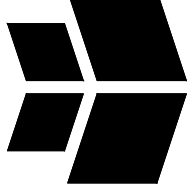
TOWF PROJ. NUMBER: BZ-23-01
WR JOB NUMBER: 09221052
DRN: WR DGN: WR CKD: WR

OVERALL GRADING AND DRAINAGE PLAN

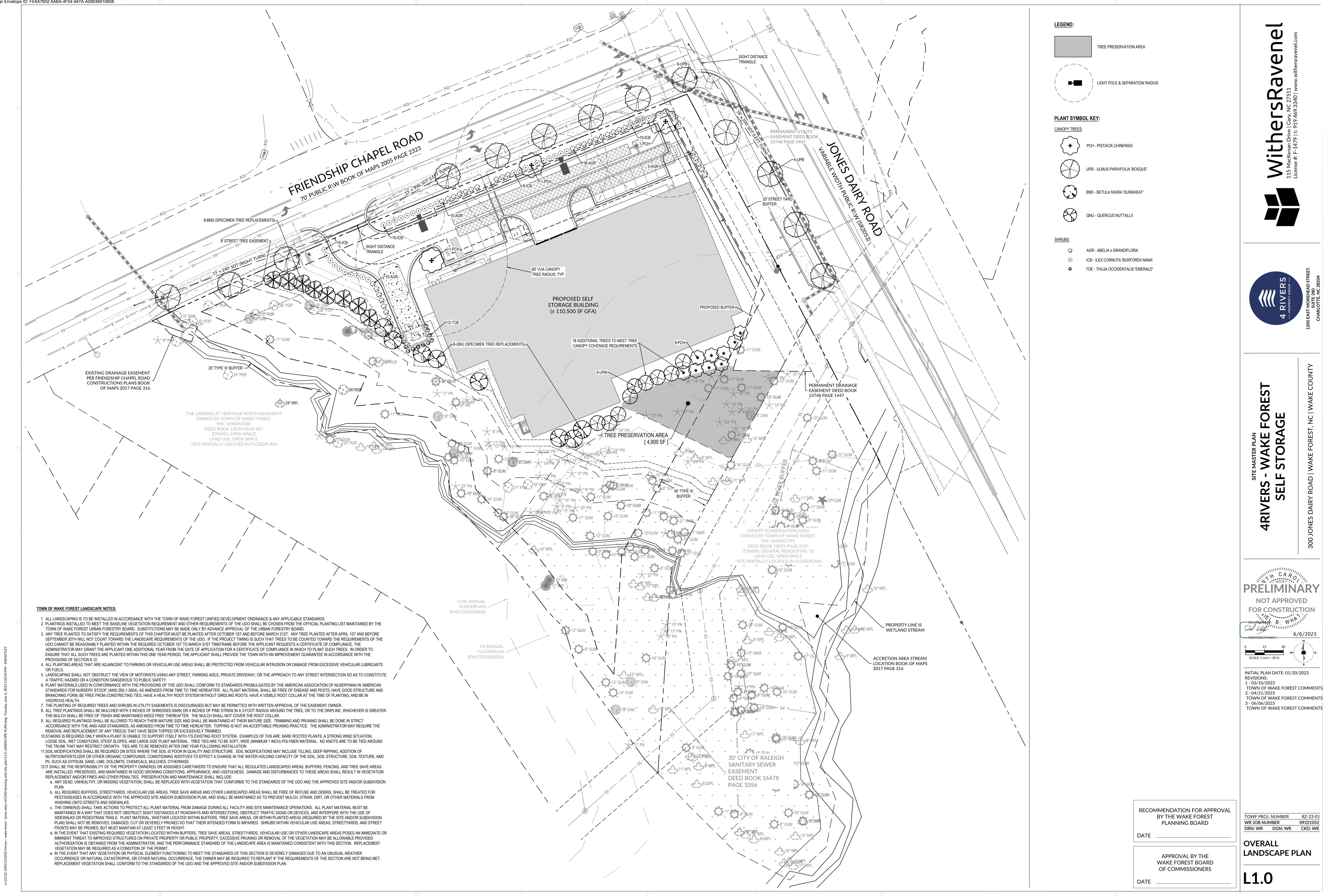
C4.0



1200 EAST MOREHEAD STREET,
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WAKE FOREST BOARD
OF COMMISSIONERS

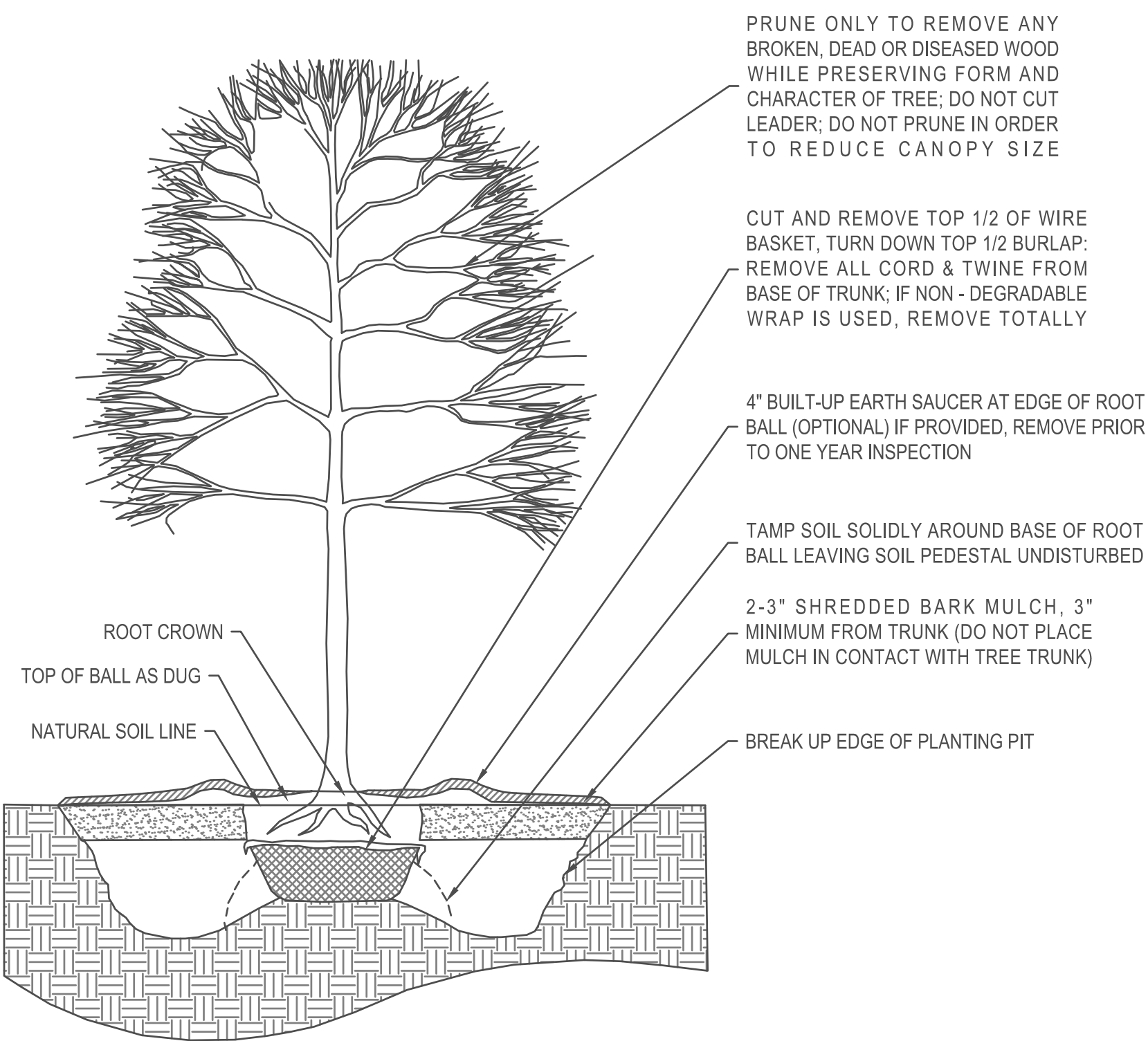
DATE _____

u:\22122_1052\1052-4-rivers - wake forest - 3-rivers dairy and CAD drawings\site plan\L2.0 LANDSCAPE DET (PLS).dwg Tuesday, June 6, 2023 5:06:38 PM - DWYATLEY

NOTES

1. CONTRACTOR TO VERIFY THAT ADEQUATE DRAINAGE EXISTS PRIOR TO PLANTING.
2. DO NOT WRAP TRUNK OF TREE.
3. STAKING OF TREES IS NOT RECOMMENDED, EXCEPT ON WINDY SITES OR FOR LARGE EVERGREEN TREES. IF STAKING IS DONE, FLEXIBLE STRAPS - NOT HOSE AND WIRE - SHOULD BE USED AND MUST BE REMOVED AT APPROPRIATE TIME. PROPERTY OWNER IS RESPONSIBLE FOR REPLACEMENT OF DESTROYED OR DAMAGED TREES.
4. ALL TREES SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MOST RECENT AMERICAN STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (A.A.N.).
5. TREES WITH ROOT FLARE COVERED BY MORE THAN 1.5" OF SOIL WILL BE REJECTED PRIOR TO INSTALLATION.

TREE PLANTING DETAIL (LAN-37)
NTS



PRUNE ONLY TO REMOVE ANY BROKEN, DEAD OR DISEASED WOOD WHILE PRESERVING FORM AND CHARACTER OF TREE; DO NOT CUT LEADER; DO NOT PRUNE IN ORDER TO REDUCE CANOPY SIZE

CUT AND REMOVE TOP 1/2 OF WIRE BASKET, TURN DOWN TOP 1/2 BURLAP; REMOVE ALL CORD & TWINE FROM BASE OF TRUNK; IF NON - DEGRADABLE WRAP IS USED, REMOVE TOTALLY

4" BUILT-UP EARTH SAUCER AT EDGE OF ROOT BALL (OPTIONAL) IF PROVIDED, REMOVE PRIOR TO ONE YEAR INSPECTION

TAMP SOIL SOLIDLY AROUND BASE OF ROOT BALL LEAVING SOIL PEDESTAL UNDISTURBED

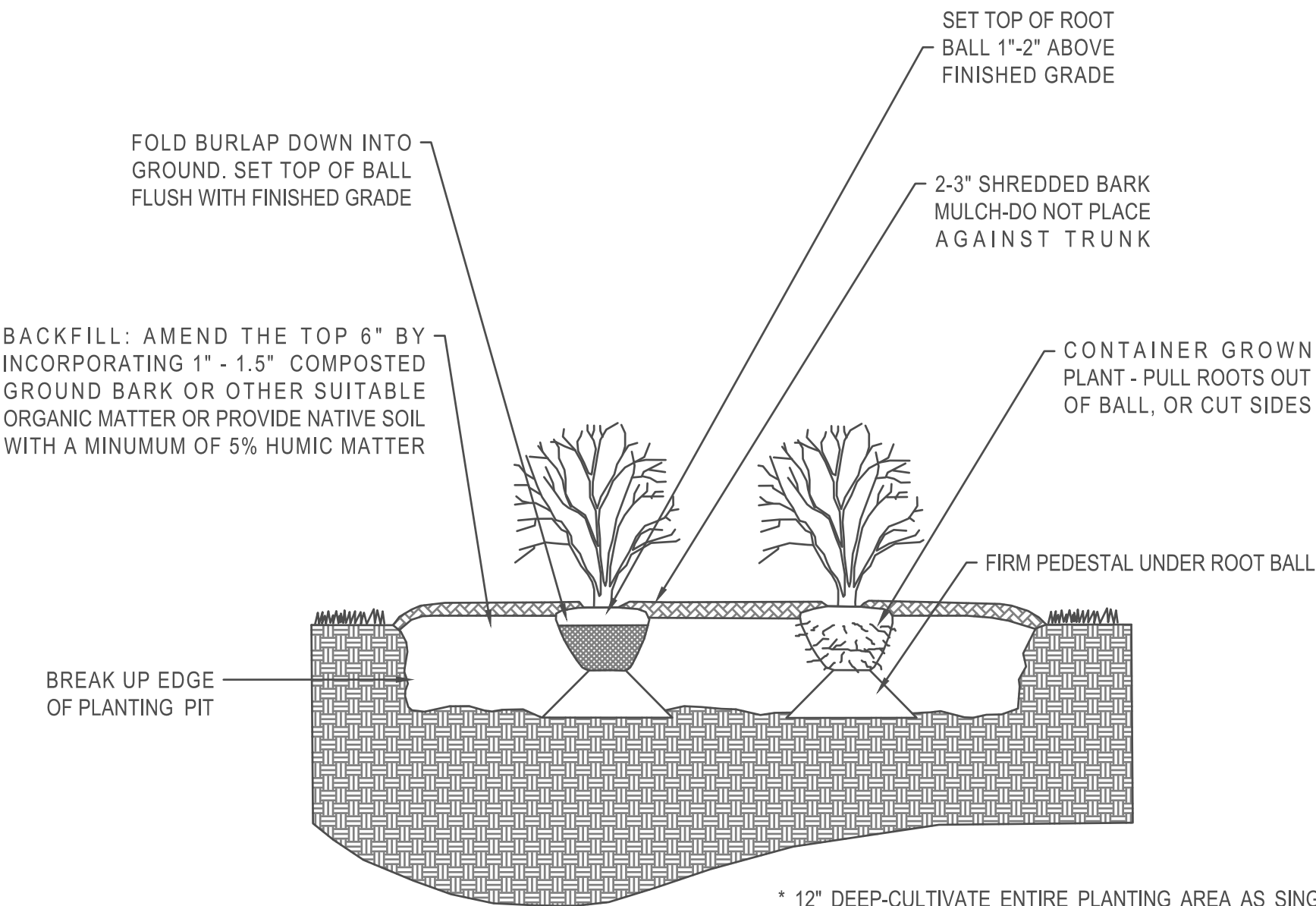
2-3" SHREDDED BARK MULCH, 3" MINIMUM FROM TRUNK (DO NOT PLACE MULCH IN CONTACT WITH TREE TRUNK)

BREAK UP EDGE OF PLANTING PIT

NOTES

1. ALL SHRUBS SHALL CONFORM TO THE STANDARDS SET FORTH IN THE MOST RECENT AMERICAN STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (A.A.N.).
2. SOIL ANALYSIS SHALL BE OBTAINED PRIOR TO PLANTING. SOIL SHALL BE AMENDED AS RECOMMENDED.
3. SHEET PREPARATION OF BEDS IS HIGHLY PREFERRED TO INDIVIDUAL DUG HOLE.S.

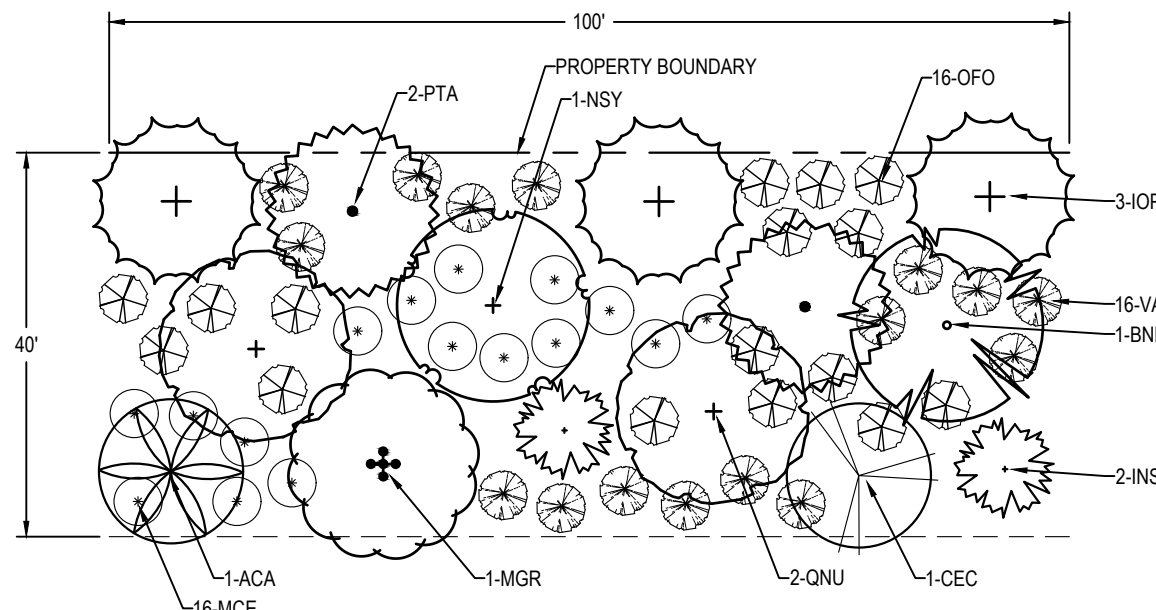
SHRUB/GROUNDCOVER PLANTING DETAIL (LAN-38)
NTS



* 12" DEEP-CULTIVATE ENTIRE PLANTING AREA AS SINGLE BED WHEN PLANTING MULTIPLES (FOR LARGER SHRUB ROOT BALLS, MAKE 4" DEEPER THAN ROOT BALL)

PLANT SCHEDULE									
KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	CALIPER (MINIMUM)	HEIGHT (MINIMUM)	TYPE	USE	NOTES
CANOPY TREES									
PCH	12	Pistacia chinensis	Chinese Pistache	B&B	1.5"	8'	D	VUA & TREE CREDITS	MATCHED
UPB	22	Ulmus parvifolia 'Bosque'	Chinese Elm	B&B	1.5"	8'	D	ST & TREE CREDITS	MATCHED
ACR	8	Quercus nuttallii	Nuttall Oak	B&B	1.5"	8'	D	SPECIMEN TREE REPLACEMENT	MATCHED
BND	8	Betula nigra 'Duraheat'	River Birch	B&B	1.5"	8'	D	SPECIMEN TREE REPLACEMENT	MATCHED
SHRUBS									
AGR	35	Abelia x grandiflora	Glossy Abelia	CONT.		18"	E	VUA	MATCHED
ICB	39	Ilex cornuta 'Burfordii Nana'	Dwarf Burford Holly	CONT.		18"	E	VUA	MATCHED
TOE	12	Thuja occidentalis 'Emerald'	Emerald Arborvitae	CONT.		18"	E	SCREEN	MATCHED
TYPE / USE LEGEND									
PLANT TYPE: E = EVERGREEN / D = DECIDUOUS / SE = SEMI-EVERGREEN / H = HERBACEOUS									
PLANT USE: ST = STREET TREE / VUA = VEHICULAR USE AREA / SCREEN = DUMPSTER									

RECOMMENDED BUFFER PLANT LIST									
KEY	BOTANICAL NAME	COMMON NAME	ROOT	CALIPER (MINIMUM)	HEIGHT (MINIMUM)	TYPE	USE	NOTES	
CANOPY TREES									
BND	Betula nigra 'Dura Heat'	Dura Heat River Birch	B&B	1.5"	8'	D	BUFFER	MATCHED	
IOP	Ilex opaca	American Holly	B&B	1.5"	8'	E	BUFFER	MATCHED	
MGR	Magnolia grandiflora	Southern Magnolia	B&B	1.5"	8'	E	BUFFER	MATCHED	
NSY	Nyssa sylvatica	Black Gum	B&B	1.5"	8'	D	BUFFER	MATCHED	
PTA	Pinus taeda	Loblolly Pine	B&B	1.5"	8'	E	BUFFER	MATCHED	
QNU	Quercus nuttallii	Nuttall Oak	B&B	1.5"	8'	D	BUFFER	MATCHED	
UNDERSTORY / ORNAMENTAL TREES									
ACA	Amelanchier canadensis	Serviceberry	B&B	1"	6'	D	BUFFER	MATCHED	
CEC	Cercis canadensis	Eastern Redbud	B&B	1"	6'	D	BUFFER	MATCHED	
INS	Ilex x 'Nellie R. Stevens'	Nellie Stevens' Holly	B&B	1"	6'	E	BUFFER	MATCHED	
SHRUBS									
MCE	Myrica cerifera	Southern Wax Myrtle	CONT.		36"	E	BUFFER	MATCHED	
OFO	Osmanthus x fortunei	Fortune's Tea Olive	CONT.		36"	E	BUFFER	MATCHED	
VAC	Viburnum awabuki 'Chindo'	Chindo Viburnum	CONT.		36"	E	BUFFER	MATCHED	
TYPE / USE LEGEND									
PLANT TYPE: E = EVERGREEN / D = DECIDUOUS / SE = SEMI-EVERGREEN / H = HERBACEOUS									
PLANT USE: BUFFER = PERIMETER BUFFER									
NOTE									
THIS PLANT SCHEDULE IS TO BE USED IF EXISTING VEGETATION DOES NOT SATISFY THE MINIMUM BUFFER REQUIREMENTS & REQUIRES SUPPLEMENTAL PLANTING									

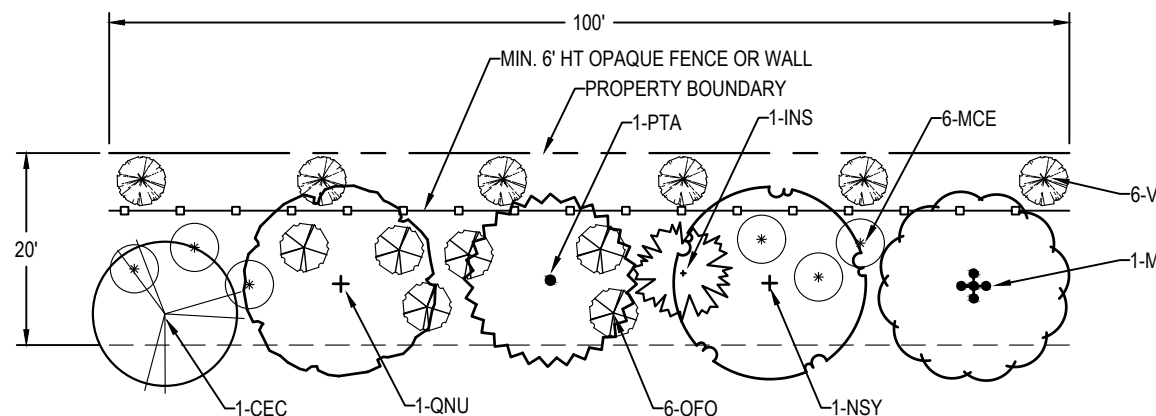


40' TYPE 'A' BUFFER - TYPICAL 100' SECTION

SCALE: 1" = 20'

REQUIREMENTS: 6 EVERGREEN TREES PER 100 LF
4 CANOPY TREES PER 100 LF
4 UNDERSTORY TREES PER 100 LF
48 SHRUBS PER 100 LF

NOTE: THIS DETAIL IS TO BE USED IF EXISTING VEGETATION DOES NOT SATISFY THE MINIMUM BUFFER REQUIREMENTS AND REQUIRES SUPPLEMENTAL PLANTING



20' TYPE 'A' BUFFER - TYPICAL 100' SECTION

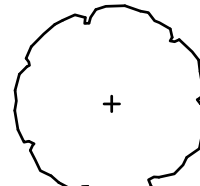
SCALE: 1" = 20'

REQUIREMENTS: 2 EVERGREEN TREES PER 100 LF
2 CANOPY TREES PER 100 LF
3 UNDERSTORY TREES PER 100 LF
18 SHRUBS PER 100 LF
MIN. 6' HT OPAQUE FENCE OR WALL

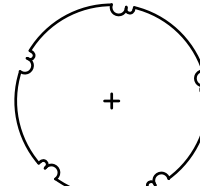
NOTE: THIS DETAIL IS TO BE USED IF EXISTING VEGETATION DOES NOT SATISFY THE MINIMUM BUFFER REQUIREMENTS AND REQUIRES SUPPLEMENTAL PLANTING

BUFFER SYMBOL KEY:

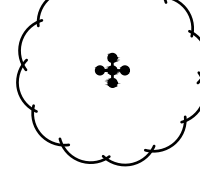
CANOPY TREES:



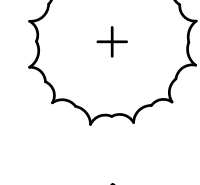
QNU - QUERCUS NUTTALLII



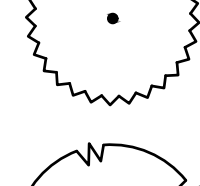
NSY - NYSSA SYLVATICA



MGR - MAGNOLIA GRANDIFLORA



IOP - ILEX OPACA

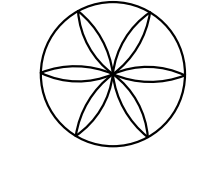


PTA - PINUS TAEDA

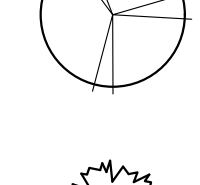


BND - BETULA NIGRA 'DURA HEAT'

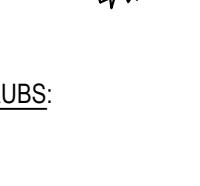
UNDERSTORY TREES:



ACA - AMELANCHIER CANADENSIS

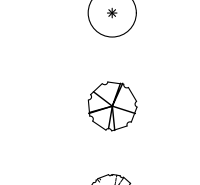


CEC - CERCIS CANADENSIS



INS - ILEX x 'NELLIE R. STEVENS'

SHRUBS:



MCE - MYRICA CERIFERA



OFO - OSMANTHUS x FORTUNEI



VAC - VIBURNUM AWABUKI 'CHINDO'

LANDSCAPE CALCULATIONS:

8.3 TREE CANOPY COVERAGE - RURAL & SUBURBAN DISTRICTS
REQUIREMENT: 2 CANOPY TREES PER 5,000 SF OF PARCEL AREA OR 1 CANOPY TREE & 1 UNDERSTORY TREE PER 4,000 SF OF PARCEL AREA

PARCEL AREA: 114,944.25 SF
DEDUCT WATERCOURSE BUFFER AND WETLANDS: 44,361 SF
REQUIRED: 29 CANOPY TREES OR 18 CANOPY TREES & 18 UNDERSTORY TREES
PROVIDED: 7 PRESERVED CANOPY TREES (SEE BELOW) & 22 PROPOSED PLANTED CANOPY TREES
TOTAL = 29 CANOPY TREE CREDITS

8.4 TREE PRESERVATION
CREDIT FOR PRESERVATION OF WOODED AREA: 1 / 700 SF
TREE PRESERVATION AREA: 4,900 SF / 700 = 7 TREE CREDITS

TREE PRESERVATION AREA INCLUDES 1-8" MAPLE, 1-8" GUM, 1-9" OAK, 1-10" PINE, 3-11" GUM, 1-12" GUM, 1-13" GUM, 1-13" PINE, 1-14" PINE, 3-15" PINE, 1-17" PINE, 1-18" PINE, 1-19" PINE, 1-21" PINE, 1-24" PINE

8.4.3 SPECIMEN TREES
SPECIMEN TREES SHALL BE REPLACED AT A RATE OF 4 NEW CANOPY TREES PER SPECIMEN TREE REMOVED, ABOVE AND BEYOND CODE REQUIRED PLANTINGS (AS DETERMINED BY THE ZONING ADMINISTRATOR)

SPECIMEN TREES REMOVED: 4 (1-PINE 20", 1-PINE 20", 1-PINE 23", 1-OAK 25")
REPLACEMENT TREES PROVIDED: 16 CANOPY TREES

8.5 BUFFERS

20' STREET YARD BUFFER: 154 LF
EXISTING VEGETATION WHICH MEETS THE MINIMUM STANDARDS FOR A TREE SAVE AREA: OR A 20' BUFFER CONTAINING THE PLANTINGS REQUIRED IN A TYPE 'B' BUFFER - OPTION 1; OR A COMBINATION OF BOTH

TYPE 'B' BUFFER OPTION 1 REQUIREMENTS
2 EVERGREEN TREES PER 100 LF
2 CANOPY TREES PER 100 LF
2 UNDERSTORY TREES PER 100 LF
24 SHRUBS (50% EVERGREEN)
3 EVERGREEN TREES
3 CANOPY TREES
3 UNDERSTORY TREES
37 SHRUBS (18 EVERGREEN)

40' TYPE 'A' BUFFER: 396 LF
6 EVERGREEN TREES PER 100 LF
4 CANOPY TREES PER 100 LF
4 UNDERSTORY TREES PER 100 LF
48 SHRUBS PER 100 LF
23 EVERGREEN TREES
15 CANOPY TREES
15 UNDERSTORY TREES
185 SHRUBS

20' TYPE 'A' BUFFER: 598 LF
2 EVERGREEN TREES PER 100 LF
2 CANOPY TREES PER 100 LF
2 UNDERSTORY TREES PER 100 LF
18 SHRUBS PER 100 LF
MIN. 6' HT OPAQUE FENCE OR WALL
12 EVERGREEN TREES
12 CANOPY TREES
18 UNDERSTORY TREES
108 SHRUBS
MIN. 6' HT OPAQUE FENCE OR WALL

8.6 STREET TREES
REQUIREMENT: 1 CANOPY TREE PER 50 LF OF PLANTING AREA

FRIENDSHIP CHAPEL RD
REQUIRED: 423 LF
9 CANOPY TREES
9 CANOPY TREES

JONES DAIRY RD
REQUIRED: 204 LF
4 CANOPY TREES
4 CANOPY TREES

8.7 VEHICULAR USE AREA SCREENING & LANDSCAPING
REQUIREMENT: ALL OFF-STREET PARKING AREAS AND SERVICE AREAS ADJACENT TO AND/OR VISIBLE FROM A PUBLIC RIGHT-OF-WAY AND ADJACENT PROPERTIES SHALL BE SCREENED FROM VIEW
ALL PARKING SPACES OR PORTIONS THEREOF SHALL BE WITHIN 60 FEET OF A PLANTED CANOPY TREE

8.8 DUMPSTERS AND MECHANICAL UTILITIES SCREENING
REQUIREMENT: ALL DUMPSTERS, LOADING DOCKS, OUTDOOR STORAGE AREAS AND UTILITY STRUCTURES, WHICH ARE VISIBLE FROM A PUBLIC STREET OR ADJACENT PROPERTY LINE, SHALL BE SCREENED UNLESS ALREADY SCREENED BY AN INTERVENING BUFFER YARD.

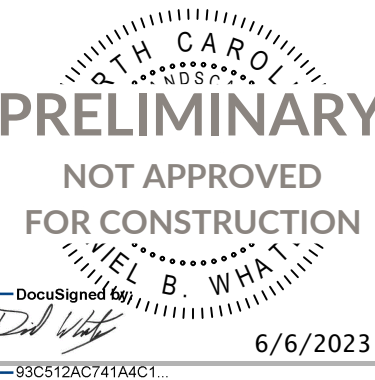
RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD

DATE _____

APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS

DATE _____

4RIVERS - WAKE FOREST
SELF STORAGE



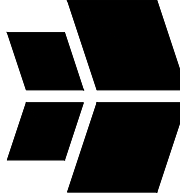
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LANDSCAPE DETAILS

L2.0

WithersRavenel
115 McKean Drive | Cary, NC 27511
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com



300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY

your people • your success

u:\2022\1000021052\4-rivers - wake forest - wake forest - jones dairy and CAD drawing site use plan\SL1 Lighting Plan.dwg Tuesday, June 6, 2023 1:04:59 PM DWYMALEY

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PARKING LOT PHOTOMETRIC SCHEDULE	
AVERAGE FOOT-CANDLES	2.98
MAXIMUM FOOT-CANDLES	4.7
MINIMUM FOOT-CANDLES	1.4
MINIMUM TO MAXIMUM FC RATIO	0.3
MAXIMUM TO MINIMUM FC RATIO	3.32
AVERAGE TO MINIMUM FC RATIO	2.1

LUMINAIRE SCHEDULE								
CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	VOLTS	QUANTITY
SHOE-420-IV		(128) 420W	GALLEON AREA AND ROADWAY LUMINAIRE(8) 70 CRI, 4000K LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS	ELECTRONIC	POLE	EATON - STREETWORKS (FORMER COOPER LIGHTING), GAN-AX-08-LED-U-SL4-XX-420W	120V 1P 2W	4

CURVE TABLE					
CURVE	ARC LEN.	RADIUS	DELTA ANG.	CHORD BRG.	CHORD LEN.
C1	237.36'	3,965.00'	00°3'25'48"	N 66°10'14" E	237.32'
C2	4.42'	50.00'	00°03'58"	N 71°13'50" E	4.42'
C3	49.51'	19,970.00'	00°08'31"	S 27°45'48" E	49.51'
C4	125.29'	19,970.00'	00°21'34"	S 27°30'43" E	125.29'

Outdoor Lighting
Shoebox LED

The energy-efficient Shoebox LED combines a decorative, contemporary style with versatility and simple lighting effect that is perfect for streets, parking lots, commercial buildings and residential communities. The Shoebox LED provides excellent color rendition along with a controlled light pattern that reduces glare and keeps the light directed only where you want it. Available in black, dark bronze, gray or white with one to four fixtures per pole.

LED
(Light Emitting Diode)

Mounting heights: 25', 30', 35'

Colors: Black
Bronze
Gray
White

Poles: Fiberglass (1 or 2 fixtures per pole)
Decorative tapered metal
Decorative square metal

Note: 30' pole available in black or bronze only.

Outdoor Lighting
Shoebox LED

Light source: LED (white)
Replacement for: LED Wattage: 150 - 250-watt HPS and metal halide;
LED Wattage: 205 - up to 400-watt metal halide;
LED Wattage: 500 - 1,000-watt metal halide

Warm-up and restrike time: Instant on (no warm-up or restrike time)

Wattage	BUS Rating	Light Pattern	Lumens	Color Temp.
LED 150	B5-UD-G3	IESNA Type V (circular)	19580	
LED 150	B5-UD-G4	IESNA Type IV (forward throw)	18459	
LED 150	B5-UD-G5	IESNA Type III (oval)	15006	
LED 220	B5-UD-G4	IESNA Type IV (forward throw)	25870	
LED 220	B5-UD-G4	IESNA Type IV (forward throw)	24390	4,000K
LED 220	B5-UD-G4	IESNA Type III (oval)	25114	
LED 420	B5-UD-G5	IESNA Type V (circular)	48214	
LED 420	B5-UD-G5	IESNA Type IV (forward throw)	43765	
LED 530	B5-UD-G5	IESNA Type V (circular)	60296	
LED 530	B5-UD-G5	IESNA Type IV (forward throw)	54395	

* These are approximate replacement suggestions; actual conditions could be different.

Poles available:

Name	Mounting height	Color
Round tapered decorative metal*	25'	Black Bronze
Decorative square metal*	25' and 30'	Black Bronze White
Fiberglass	30'	Black (1 or 2 fixtures per pole) Gray (1 or 2 fixtures per pole)

Features

Features	Benefits
Little or no installation cost	Free up capital for other projects
Design services by lighting professionals included	Meets industry standards and lighting ordinances
Maintenance included	Eliminates high and unexpected repair bills
Electricity included	Less expensive than metered service
Warranty included	Worry-free
One low monthly cost on your electric bill	Convenience and savings for you
Turnkey operation	Provides hassle-free installation and service
Backed by over 40 years of experience	A name you can trust today ... and tomorrow

*2" raised foundation available when required on metal poles only.

SITE MASTER PLAN

4RIVERS - WAKE FOREST SELF STORAGE

300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY

PRELIMINARY
NOT APPROVED
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6/6/2023

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SCALE: 1 inch = 30 ft.

6/6/2023

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OVERALL LIGHTING PLAN

SL1.0



1200 EAST MOREHEAD STREET,
SUITE 200
CHARLOTTE, NC 28204

SITE MASTER PLAN

4RIVERS - WAKE FOREST
SELF STORAGE

300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY

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SITE MASTER PLAN

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CHARLOTTE, NC 28204

SITE MASTER PLAN

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CHARLOTTE, NC 28204

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DRN: WR DGN: WR CKD: WR

OVERALL LIGHTING PLAN

SL1.0



1200 EAST MOREHEAD STREET,
SUITE 200
CHARLOTTE, NC 28204

SITE MASTER PLAN

4RIVERS - WAKE FOREST
SELF STORAGE

300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY

PRELIMINARY
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FOR CONSTRUCTION

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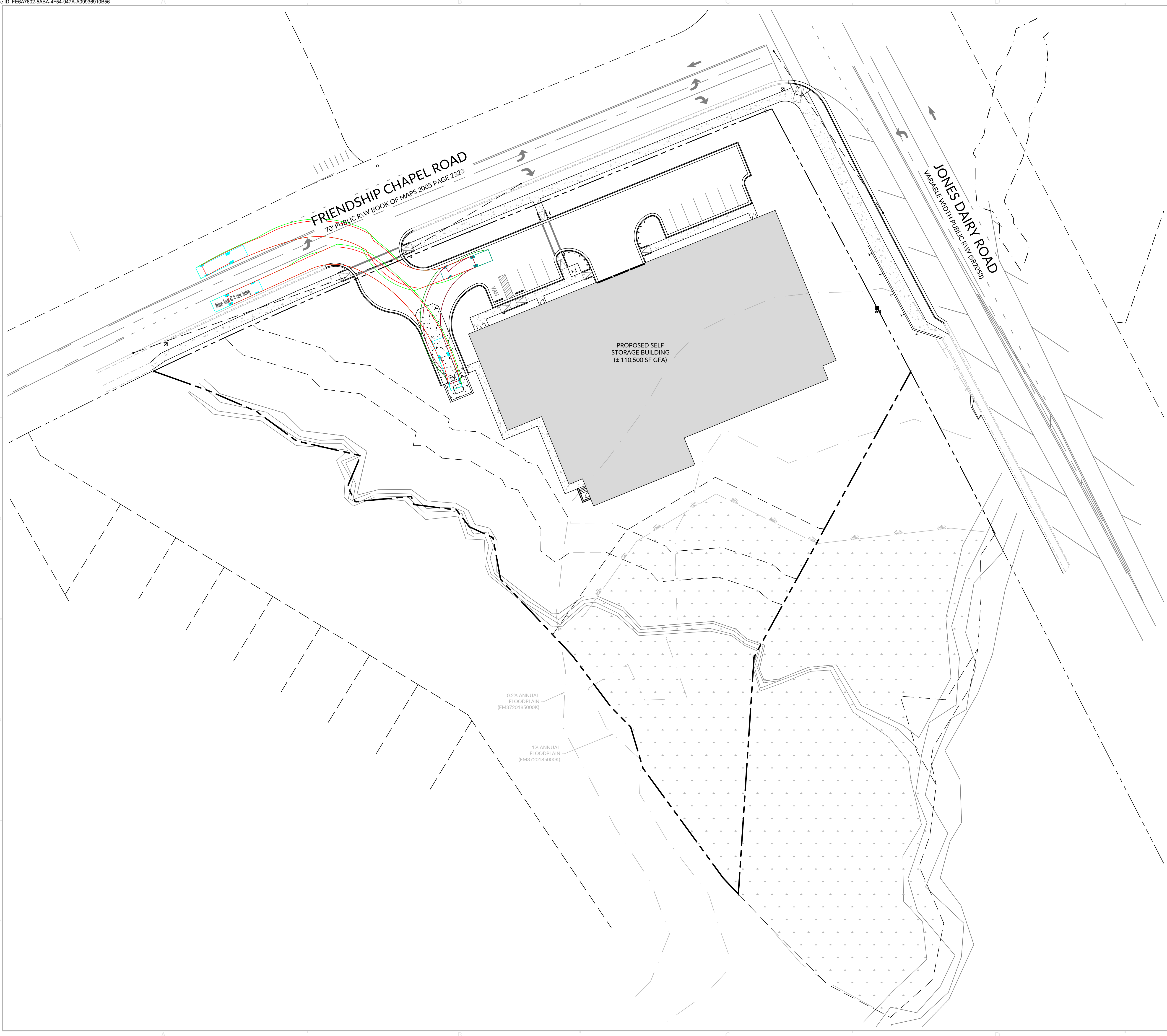


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SUITE 200
CHARLOTTE, NC 28204

SITE MASTER PLAN

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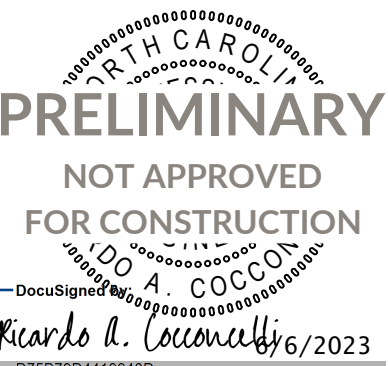


RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD

DATE _____

APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS

DATE _____



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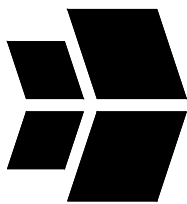
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WR JOB NUMBER: 09221052
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TRUCK PATH -
GARBAGE TRUCK

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WithersRavenel
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License #: F-1479 | t: 919.469.3340 | www.withersravenel.com



Planning Board Agenda Item Report

Agenda Item No.: 2023-206-
Submitted by: Courtney Tanner
Submitting Department: Planning
Meeting Date: August 21, 2023

SUBJECT

Consideration of August 2023 Draft Wake Forest Public Transit Plan (CPA-23-02)

Recommendation:

Item Summary:

ATTACHMENTS

- [CPA 23-02 Staff Report.pdf](#)
- [Attachment A - Application.pdf](#)
- [Exhibit 1 - Draft Wake Forest Public Transit Plan \(August 2023 Version\)](#)



Staff Report

CPA-23-02: Wake Forest Public Transit Plan

Meeting Date	August 21, 2023
Requested Actions	Consideration of the draft Wake Forest Public Transit Plan (August 2023 version)
Case Manager	Courtney Tanner, Planning Director

PUBLIC MEETINGS

Public Comment Session	Public Hearing (tentative)
August 21, 2023	September 19, 2023

CASE INFORMATION

Applicant	Town of Wake Forest 301 S Brooks Street Wake Forest, NC 27587
<i>See Attachment A for copy of the Application.</i>	

CASE SUMMARY

The Town of Wake Forest began offering bus service in 2008 as a partnership between the City of Raleigh and the Town of Wake Forest, with GoRaleigh operating the route and the City of Raleigh paying for the portion of the route located in Raleigh. The fare free fixed route service, the Wake Forest Loop, offers Wake Forest residents access to commercial and shopping opportunities, medical facilities, and public services in the Wakefield neighborhood in Raleigh. The Town is also served by the Wake Forest-Raleigh Express (WRX), a commuter service route from GoTriangle, and operated by GoRaleigh. The bus service runs hourly during peak hours between Downtown Wake Forest, Triangle Town Center, and Downtown Raleigh.

After conducting a popup event, four open houses, two online surveys, and evaluating existing conditions, Toole Design developed several transit service alternatives to address the five identified purposes for expanding transit in Wake Forest. Feedback provided by the Board of Commissioners, Planning Board, and the public was used to develop preferred scenario action item matrix.

STAFF RECOMMENDATION

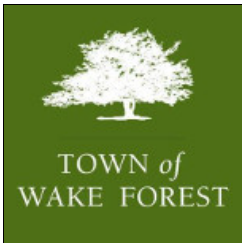
Staff recommends approval of the August 2023 draft Wake Forest Public Transit Plan.

ATTACHMENTS

Attachment A: Application

EXHIBITS

Exhibit 1: Draft Wake Forest Public Transit Plan (August 2023 version)



Comprehensive Plan Amendment Application

(Comprehensive Plan Amendment - Planning Board Workflow)

Town of Wake Forest, NC
301 S. Brooks St.
Wake Forest, NC 27587-2932
TEL (919) 435-9510 | FAX (919) 435-9539

Project Overview

#1086952

Project Title: Wake Forest Public Transit Plan

Jurisdiction: Town of Wake Forest (Wake County)

Application Type: Comprehensive Plan Amendment

State: NC

Workflow: Comprehensive Plan Amendment - Planning Board

County: Wake

Confirmation Checklist Items Submitted

A submittal checklist is available to view additional documents which are required to submitted with this application. After answering the application questions, you will be asked to upload the required documents.

[VIEW COMPREHENSIVE PLAN AMENDMENT
SUBMITTAL CHECKLIST](#)

Missing items will result in the application being declined and returned to the applicant to resubmit. A revised and complete application including all missing items must be received or the application will be not be deemed complete and routed for review.

Please confirm you have reviewed the associated submitted checklist for this permit and confirm you will submit all documents required on the submittal checklist: Yes

Pre-Application Meeting

Has a pre-application conference been held?: No

*Note: This type of project requires a pre-application conference be completed prior to official submittal. If this has not been completed, please return to the home screen and select **Pre-Application Conference** from the application type drop down list in order to schedule your required meeting.*

Pre-Application Conference Date:

Staff Member Met With:

IDT Project Number:

Project Contact - Applicant/Owner

Please enter all project contacts related to your application.

This is an important step to ensure all members of the applicant team receive email notifications associated with the project which may include comments, requested revisions, scheduled meetings or hearings, and final decisions. This also informs Town staff of the team members assigned role with the project.

Project Contact - Applicant

Kip Padgett

Town of Wake Forest
301 S Brooks Street
Wake Forest, NC 27587
P:9194359411

Amendment Type

Please provide answers to the questions below. Other application materials specified in the submittal checklist must be uploaded as separate documents. You will have the opportunity to upload documents prior to finalizing and submitting this application.

Plan Being Amended: Wake Forest Community Plan **Type of Amendment:** Text

Description of Request:

Town staff has drafted the Wake Forest Public Transit Plan and intends to bring the document before the Planning Board for consideration.



TOWN of
WAKE FOREST

WAKE FOREST **PUBLIC** **TRANSIT** PLAN

DRAFT-AUGUST 2023

ACKNOWLEDGEMENTS

Board of Commissioners

Vivian Jones
Mayor

Jim Dyer
Commissioner

Chad Sary
Commissioner

Keith Shackleford
Commissioner

Nick Sliwinski
Commissioner

Adam Wright
Commissioner

Planning Board

Karin Kuropas
Chair

Michael Hickey
Vice Chair

Michael Almquist
Board Member

Thomas Ballman
Board Member (through December 2022)

Sheila Bishop
Board Member

Christopher Joyner
Board Member (through May 2023)

Michael Siderio
Board Member

Town of Wake Forest Staff

Courtney Tanner
Planning Director

Emma Linn
Planner II – Long Range Planning

Tim Bailey
Public Works Director

Joe Medlin
Street Maintenance Manager

Brad West
Long Range Planning Manager

Wake Forest Communications Team

Stakeholders

GoRaleigh

GoTriangle

Wake County

**Capital Area Metropolitan Planning
Organization (CAMPO)**

Project Consultants

Toole Design Group
Public Participation Partners (P3)

Thank You!

We would also like to thank the many people in Wake Forest that set aside time to attend open houses and respond to surveys to provide their valuable perspectives on transit services throughout the development of this Public Transit Plan.

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Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein are based on limited data and information and on existing conditions that are subject to change.

EXECUTIVE SUMMARY

The Town of Wake Forest is seeking to expand its transit service. The Wake Forest Loop (WFL) circulator and the Wake Forest-Raleigh Express (WRX) have served the Town since 2008. The circulator service provides residents access to public services, medical facilities, and commercial destinations in Wake Forest and the Wakefield neighborhood in Raleigh. The express service provides commuter access to downtown Raleigh.

With a rapid increase in population and development, expanded transit services are necessary in Wake Forest to provide residents, employees, and visitors additional mobility options beyond that of an automobile. The Town conducted the Wake Forest Public Transit Plan (Transit Plan) to explore the options to expand transit to serve growing parts of the Town and connect to key activity centers. The Transit Plan summarizes the evaluation of existing transit services in Wake Forest, discusses the viability of different transit expansion alternatives, and recommends a preferred option to expand transit – including the service type, cost of the service expansion, and steps to implement the service.

An interdepartmental group of Town staff, with the support of a consultant team (the “project team”) developed the Transit Plan with input from the community. The project team held open house events at key milestones and conducted a community survey, a rider survey, and a pop-up engagement event to better understand the community’s transit needs and solicit feedback on alternative service scenarios.

The Transit Plan presents the preferred alternative and next steps to implement the service, including an overview the preferred alternative operations – map(s) and operating assumptions.

PURPOSE AND NEED FOR EXPANDED TRANSIT IN WAKE FOREST

Although the Town of Wake Forest is currently served by transit services, rapid growth and development over the past decade require renewed understanding of how the transit services can be expanded to meet the current and future needs of the Town. Expanded transit service in the Town will provide an additional mobility option for residents, employees, and visitors to reach destinations inside and outside of the Town. Additional mobility options can support the Town's ability to grow while lessening the impact of the growth on the existing roadway network.

PREVIOUS PLANS AND STUDIES

A review of previous plans and studies by the Town of Wake Forest, transit service providers, and regional partnering agencies provided insight into the purpose and need for expanding transit in the Town. The plans and studies summarized below have set the foundation from which the Transit Plan and the transit service alternatives considered are based.

- The Town of Wake Forest **Community Plan**, adopted in April 2022, prioritizes transit as a key element of its long-term vision for the Town. It includes recommendations to nurture supportive urban development for transit, walking, and bicycling, with specific land use typologies and designated areas for Transit-Oriented Development. The Plan also proposes actions such as incorporating pedestrian/bicyclist/transit-oriented areas in shopping centers, expanding route networks, constructing smart bus shelters with interactive features, and exploring long-term transit options like fixed or microtransit.
- The Town's **Comprehensive Transportation Plan (CTP)** is a long-range multi-modal Plan that aims to develop a safe, efficient, and inclusive transportation system. With a low percentage of residents utilizing existing services, the Plan acknowledges the current barriers to transit use. To address these barriers, the CTP recommends implementing additional bus loops, developing interactive websites and real-time technology, incorporating public art and wayfinding at bus shelters, and exploring microtransit options.
- The **Northeast Community Plan**, adopted in late 2021, focuses on improving transit options in the historically Black Northeast Community. The Plan acknowledges limited connectivity and the lack of transit frequency in the area. Recommendations include exploring new transit connections and routes to link the community to commercial and job centers, investigating innovative multimodal technologies like microtransit, and considering the viability of adding transit routes to points north of the community.
- The **Wake Bus Plan** provides an overview of the recommended transit service and capital investments from FY2025 to FY2030 across Wake County. The Plan focuses on four big moves, including regional connections, frequent transit networks, and enhanced access to transit. The Plan proposes replacing Route 401X in the Town of Rolesville with a potential microtransit service, a new Route2L that connects the northern terminus of Route 2 to Wake Forest, and capital investment for the Wake Forest Park and Ride Lot.

EXISTING AND PLANNED TRANSIT

The Town of Wake Forest is currently served by two fixed-route transit services and a paratransit service. The services are provided by GoRaleigh, a local transit provider operating services throughout the City of Raleigh and Wake County areas.

- The **Wake Forest Loop (WFL)** is a bidirectional circulator that operates largely within the Town (and partially within Raleigh on the southwestern portion of the loop). WFL A runs clockwise and WFL B runs counterclockwise. Both loops operate every 75 minutes from approximately 6:00 AM to 8:00 PM Mondays to Fridays, and every 65 minutes from approximately 8:00 AM to 9:00 PM on Saturdays.
- The **Wake Forest-Raleigh Express (WRX)** is a commuter service that connects Wake Forest to Downtown Raleigh, via Triangle Town Center. The WRX provides service on Mondays to Fridays approximately between 6:00 AM to 7:30 PM. In the northbound direction from Downtown Raleigh to Wake Forest, there are two buses in the morning and three buses in the evening. In the southbound direction from Wake Forest to Downtown Raleigh, there are three buses in the morning and two buses in the evening. Buses are an hour apart in both the morning and evening.
- **GoRaleigh Access** provides a paratransit service for people with disabilities and covers trips that originate within 3/4-mile of any GoRaleigh bus stop. The service is available to anyone who qualifies under the Americans with Disabilities Act and requires an application. Trips need to be scheduled between 8:15 AM and 4:45 PM for the same day or next day. Trips may be scheduled via an online form, phone call, or email.
- **GoWake Access** offers door-to-door service in Wake County, allowing individuals who require specialized transportation assistance to schedule trips for various purposes such as medical appointments, employment, education, and other essential activities. It is designed to provide accessible transportation options for individuals with disabilities, people 60 years or older, people who need work-related transportation, residents in rural service zones, or people who participate in a sponsored eligible service such as Medicaid.

There are several planned transit services in Wake Forest based on regional transit and county plans.

- **Route 2L** is a planned route by GoRaleigh that will provide new hourly service from Downtown Wake Forest to WakeMed North Hospital.¹ The route will be scheduled for timed transfers at the hospital to and from Route 2 in the peak direction. Route 2 provides half-hourly service to Downtown Raleigh via Falls of Neuse Road and Five Points.
- The **S-Line** is an existing freight corridor between Tampa, FL and Washington, DC and was noted as an “Option for Future Expansion.”² The North Carolina Department of Transportation (NCDOT) is facilitating a group of municipal and regional stakeholders to study passenger rail options to provide a local commuter and regional intercity rail service through the S-Line. There are three potential S-Line stations, including a downtown stop, that will go through Wake Forest.
- **Rolesville Microtransit** is being planned by GoRaleigh to open in FY2024 per the FY2025-2030 Wake Bus Plan. The operating scenarios for the service are still being developed, however, the current proposal includes specific drop-off/pickup locations in Wake Forest. The microtransit service would replace the 401X in Rolesville.

¹ <https://online.flippingbook.com/view/745228616/55/>

² <https://storymaps.arcgis.com/stories/ad165d3a7df8468b8c7f54c86e88b21d>

Figure 1 illustrates the existing transit services – the WFL and the WRX in Wake Forest, as well as services in the surrounding areas – the 25L in Raleigh, and the 401X in Rolesville. The proposed transit services shown are the Route 2L, proposed S-Line stations in Wake Forest, and the preliminary microtransit zone in Rolesville which will replace the 401X.

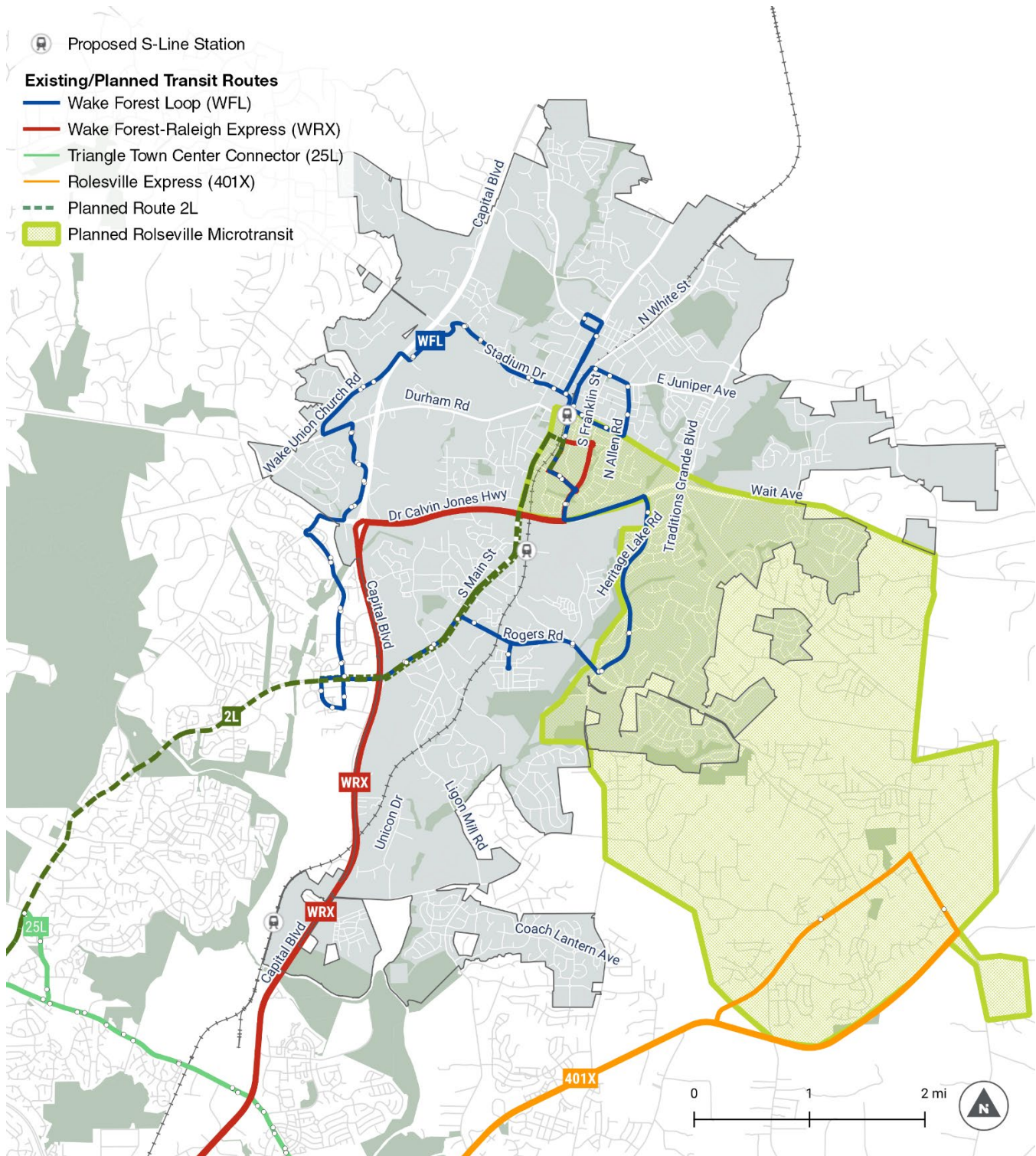


Figure 1. Existing and Proposed Transit Service in Wake Forest (2023)

Ridership on existing transit services in Wake Forest were impacted by the COVID-19 pandemic. The WFL carried approximately 30,000 riders annually until the start of the pandemic in 2020 where ridership was reduced to approximately 15,000-18,000 annually. Ridership began to rise again in 2022, though it has not reached pre-pandemic levels. Similarly, ridership on the WRX dropped from approximately 13,000 riders annually to 7,000 in 2022. This decline in ridership coincides with a national trend in transit ridership away from commuter use and toward all-purpose ridership, with commute-focused express services being slower to rebound to pre-pandemic ridership levels than other services. See Figure 2.

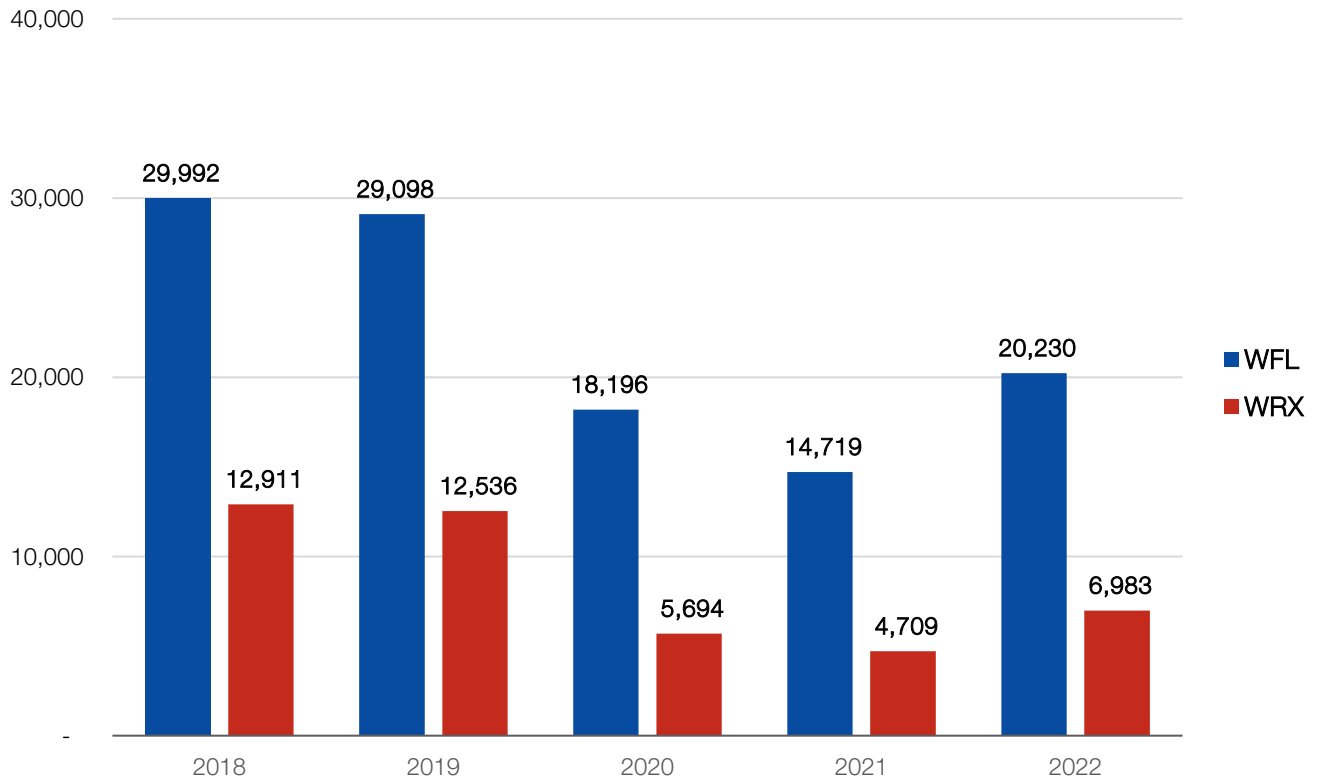


Figure 2. WFL and WRX Annual Ridership (2018-2022)

Figure 3 illustrates the density of weekday ridership on the WFL in 2022. Areas with higher ridership are in Downtown Wake Forest and retail and commercial activity centers on the west side of Town.

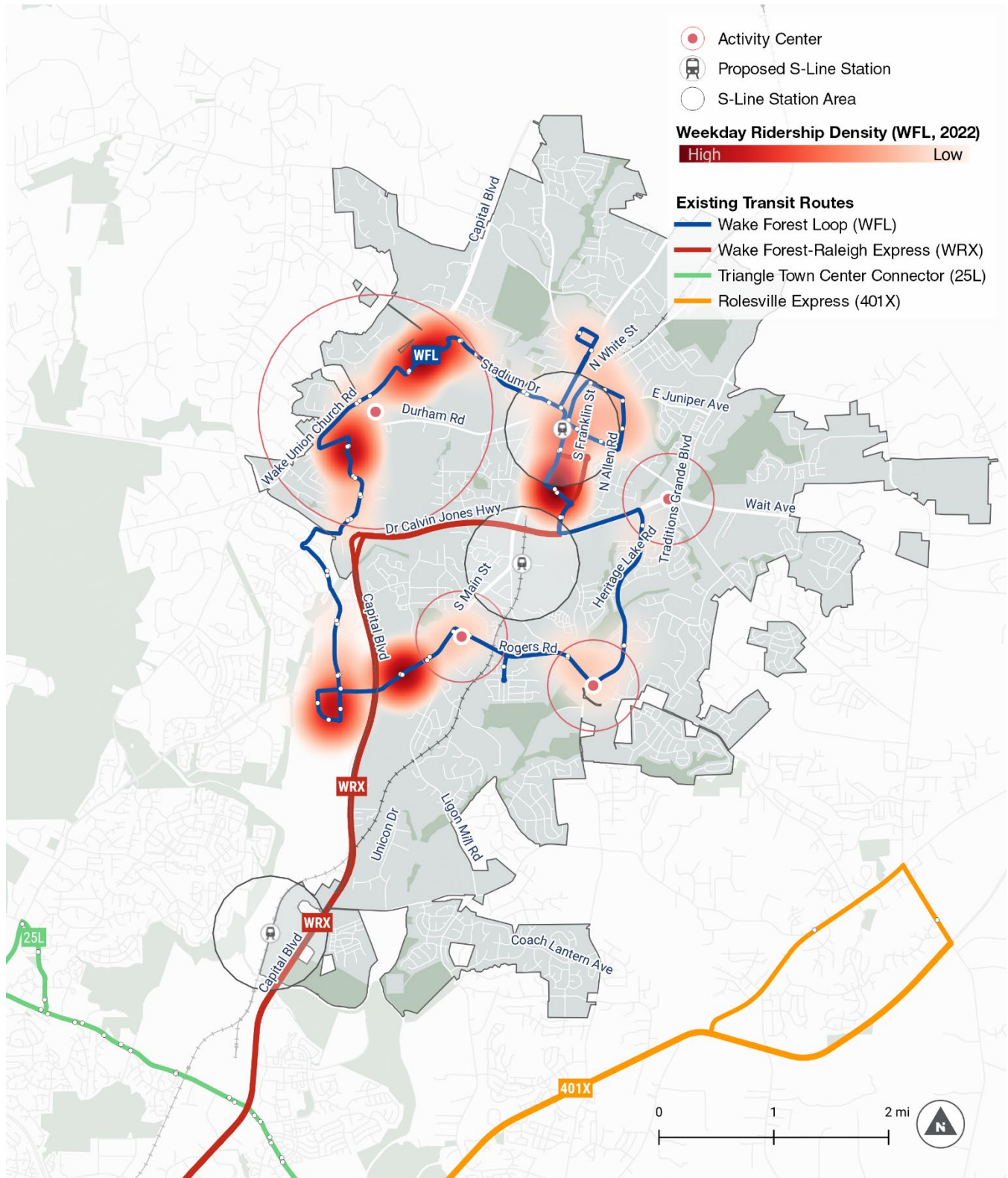


Figure 3. Ridership Density for Weekday WFL (2022)

POPULATION GROWTH AND TRANSIT NEEDS

The population in Wake Forest has been significantly increasing over the past decade. From 2010 to 2020, there was an estimated 32 percent increase in population density in Wake Forest –1,995 persons per square mile in 2010 to 2,638 persons per square mile in 2020.³ Figure 4 maps the population density in the Town with data from the American Community Survey (ACS) 5-year, 2017-2021 estimates. The parts of Wake Forest that have the highest population density include the sections east of Main Street, near Calvin Jones Highway and Durham Road, north of Stadium Drive, and near Coach Lantern Avenue and Ligon Mill Road.

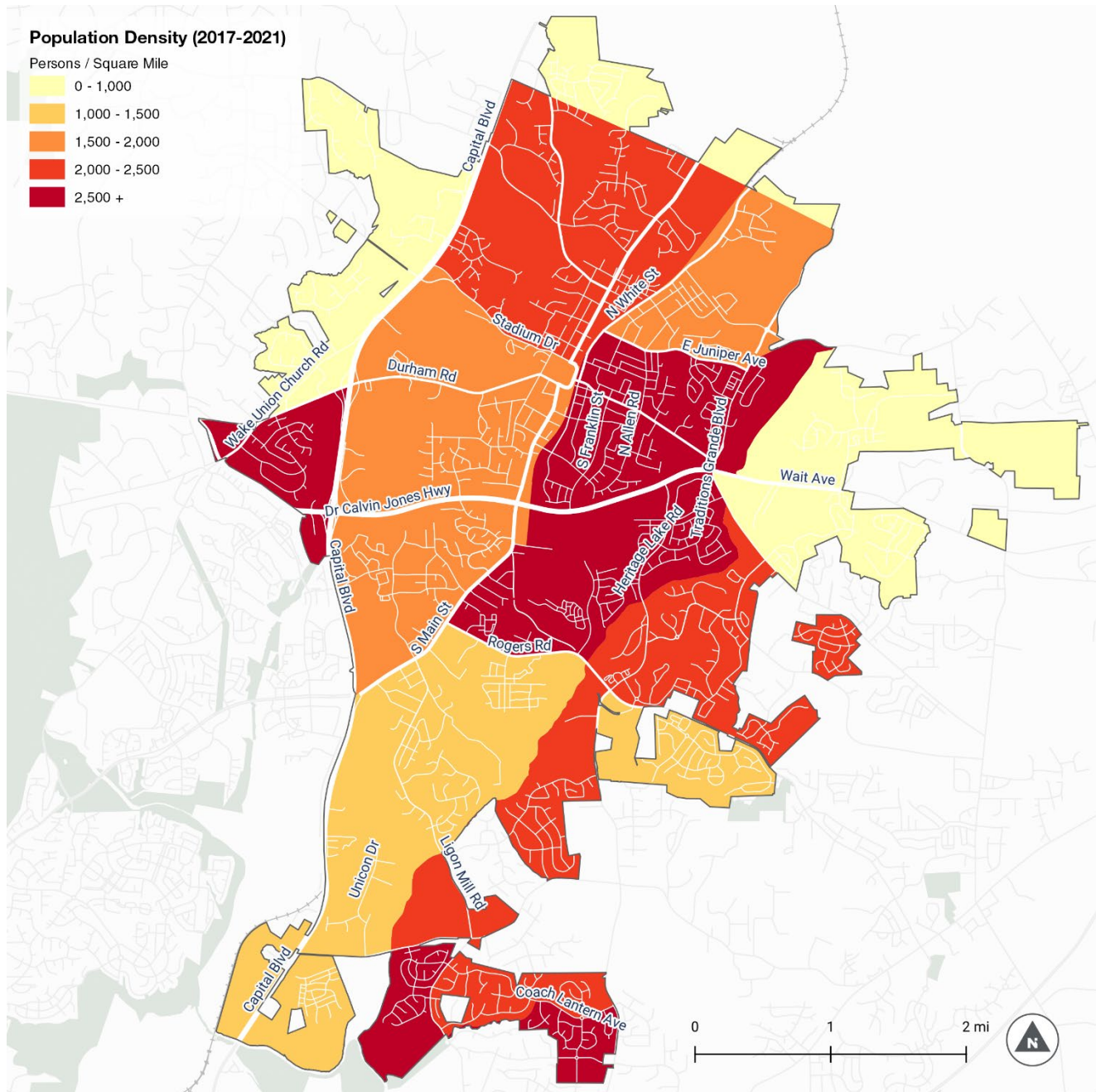


Figure 4. Wake Forest Population Density, Population Estimates from ACS 2017-2021

³ <https://www.census.gov/quickfacts/wakeforesttownnorthcarolina>

Beyond population growth, the project team identified four elements that indicate where transit expansion in the Town is needed.

- **Transit Propensity**, the likelihood that people would choose to take transit, can be indicated based on the demographics of the community. Areas that have a higher population density, a higher percent of households below the poverty line, and/or a higher percent of zero vehicle households have been shown by national and regional research to have a higher transit propensity.⁴
- **Transit-Oriented Development & Activity Centers** are identified as growth areas in the Wake Forest Community Plan. It included three proposed Transit-Oriented Development (TOD) sites centered around the proposed S-Line commuter rail stations that would have highly walkable, active developments to support and fully leverage the new transit service. The Wake Forest Community Plan also designated four Activity Centers intended to be unique focal points of the community where residents can gather, socialize, live, work, and shop.
- **Local and Regional Areas** were identified in previous plans as places to connect to transit. The Northeast Community Plan discussed the limited connectivity in the Northeast Community of Wake Forest.⁵ Additionally, Wake County has led discussions about a connection between Wake Forest and Rolesville, a Town about five miles southeast of Wake Forest.
- **Multiuse Paths and Greenways** are an important piece of the transit propensity analysis. Existing multiuse paths and greenways provide first- and last-mile connections for transit riders. They can also be destinations for local and regional visitors who want to travel by transit.

Figure 5 illustrates these elements along with existing transit services in the Town and surrounding areas and formed the basis from which the project team developed transit service alternatives.

⁴ Regional studies include the GoTriangle FY 2021 Annual Bus Service Performance Report and the Wake County Transit Plan Update.

⁵ Northeast Community Plan (<https://online.flippingbook.com/view/370447640/2-3/>)

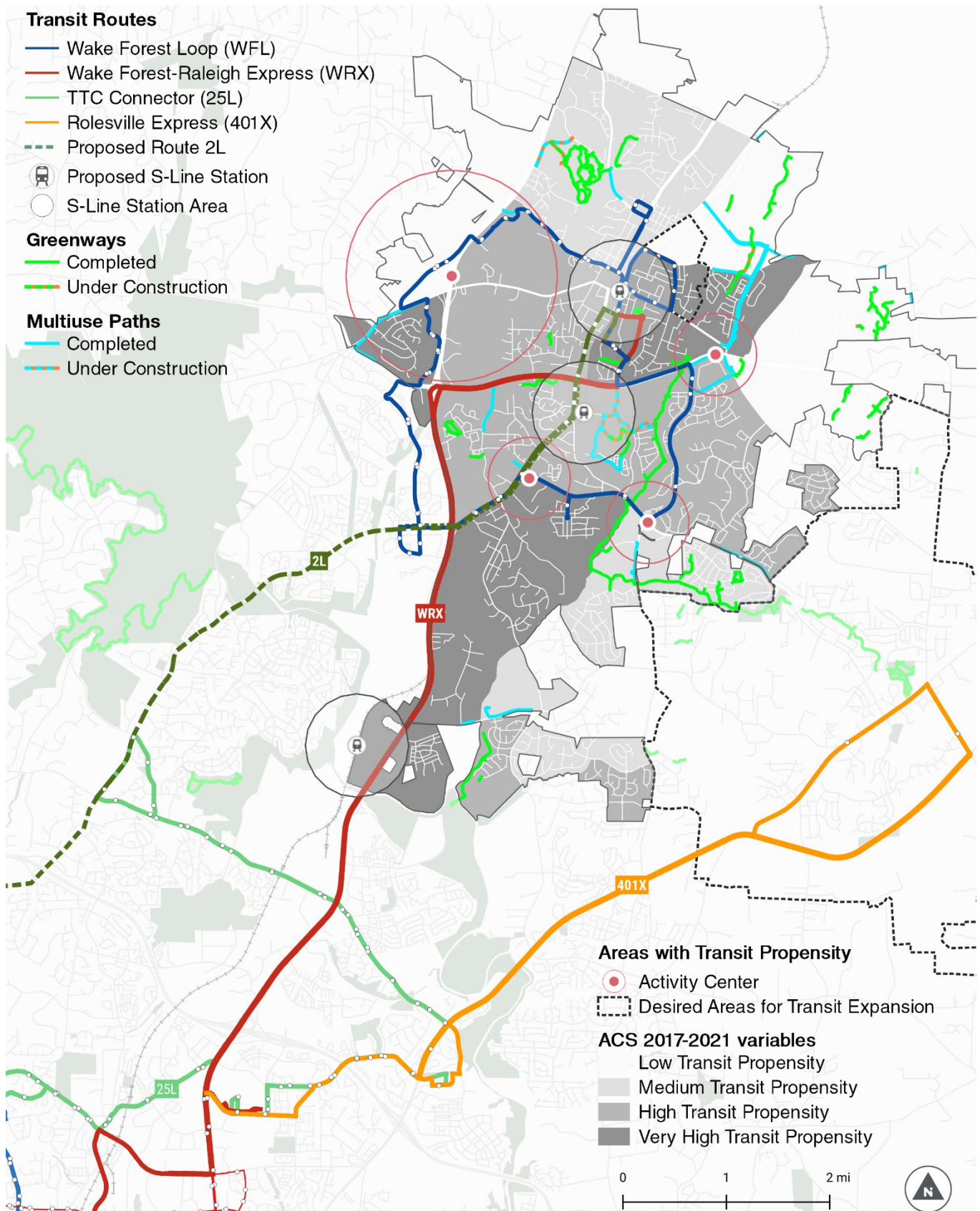


Figure 5. Transit Propensity Wake Forest

COMMUNITY AND STAKEHOLDER FEEDBACK

The project team heard from the people of Wake Forest through multiple means of community and stakeholder engagement. The goals of the engagement process were to 1) better understand how well existing services are working for the public, and 2) consider potential alternatives.

Eight engagement activities were held by the project team to gather feedback from the community and stakeholders. This section outlines these events chronologically as they were held throughout the planning process from October 2022 through July 2023.

October 2022

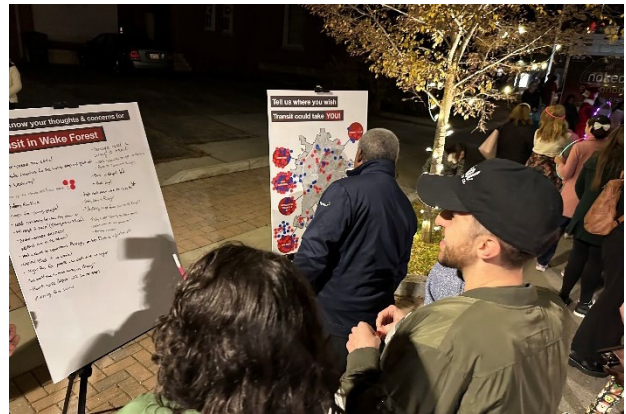
Board of Commissioners and Planning Board Work Sessions

To kickoff the project, the project team made introductory presentations at the October 4, 2022 Board of Commissioners work session and the October 11, 2022 Planning Board meeting. The presentations provided an overview of the transit types, key considerations, and the engagement efforts that would be made to develop the Transit Plan.

December 2022

Pop-up Events

The project team attended the Lighting of Wake Forest holiday event on December 2, 2022 to provide information and gather feedback for the Transit Plan. At this pop-up, attendees were invited to place a sticker on a map to indicate where they would like to be able to travel to via bus. The map board received 224 responses and the Town staff along with the project team were able to answer questions about existing transit service from residents.



February 2023

Community Survey

The project team released a community survey to learn more about the public transit preferences of residents. The community survey was made available from December 1, 2022 to February 19, 2023. The survey was available in an online format and a paper form made available at the December 2022 pop-up event. There were 687 unique participants. Results from the survey are summarized below and in Appendix A.

Public Open Houses

Two public open houses—one early afternoon and another in the evening—were hosted at the Alston-Massenburg Center by the project team on February 2, 2023. The goal of these open houses was to provide residents and stakeholders with information on the Transit Plan. Attendees were invited to share feedback on their existing use of transit and future transit needs. These open house events also included activities for kids.

The project team hosted a BBQ to encourage participation and asked participants to ride the bus. The event was advertised via postcards mailed to residents and on the project's webpage.



April 2023

Rider Survey

From March 12, 2023 to April 6, 2023, a survey focused on collecting input from people that use the existing transit services in Wake Forest was released by the project team. A total of 51 participants provided feedback related to existing transit and opportunities for improvement. Results from the survey are summarized below and in Appendix B.

To promote the survey, the project team posted QR codes on sidewalk decals, posted signs at bus stops that took users to the online survey, and handed out information with the QR code to bus riders.



May 2023

Stakeholder Interviews

The project team held interviews with key stakeholders in the region. Interviews were held with regional transit service providers – GoTriangle, GoRaleigh, and GoWake Access on May 9, 2023, and with the Capital Area Metropolitan Planning Organization (CAMPO) on May 15, 2023. At the interviews, the project team presented draft transit service alternatives and received feedback about system compatibility from the transit service providers, and information on program funding from CAMPO.

July 2023

Board of Commissioners and Planning Board Work Sessions

The project team made presentations at the July 6, 2023 Board of Commissioners work session and the July 11, 2023 Planning Board meeting. The presentations provided an overview of the transit service alternatives being considered and the strengths and weaknesses of each alternative.

Public Open Houses

The project team hosted two public open houses—one early afternoon and another in the evening—on July 10, 2023 at the Alston-Massenburg Center. The goal of these open houses was to present transit service alternatives to expand transit services in Wake Forest. The strengths and weaknesses of each alternative were presented, and the project team solicited feedback on the community's preferred alternative.

To promote the open house, the project team placed notices on the project's webpage and postcards with details about the open house were mailed to residents (samples below).

WAKE FOREST PUBLIC TRANSIT PLAN

See the draft transit alternatives and offer your comments

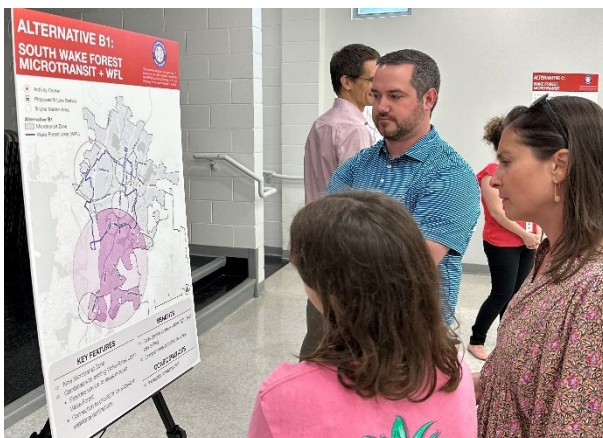
Open House Monday, July 10

11 am–1 pm and 6:30–8:30 pm
Alston-Massenburg Center
416 N Taylor St | Wake Forest

PROJECT WEBSITE:
wakeforestnc.gov
search "Public Transit Plan"

QUESTIONS?
Emma Linn, Planner II
elinn@wakeforestnc.gov
919-435-9514

TOWN of WAKE FOREST



In the community survey, 82% of the 679 respondents indicated that they do not ride transit in Wake Forest. See Figure 6.

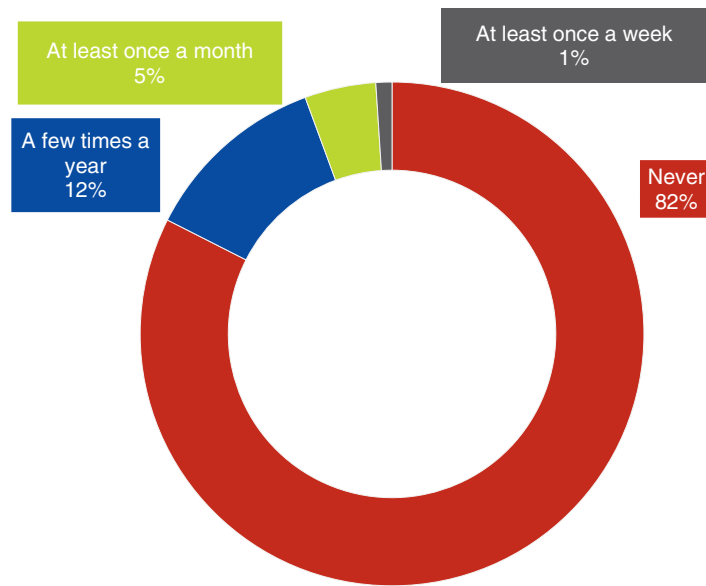


Figure 6. Frequency of Wake Forest Transit Use Among Survey Respondents, Community Survey February 2023

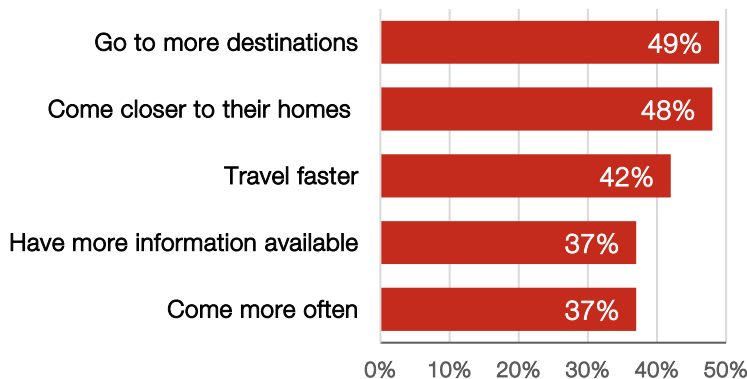


Figure 7. Things That Would Encourage Respondents to Take Transit More, Community Survey February 2023

The low use of transit indicates that the existing transit services are not meeting the mobility needs of the Town. When asked what transit service needed to do differently to encourage people to ride transit more frequently, respondents top three responses were 1) *go to more destinations*, 2) *come closer to their homes*, and 3) *travel faster*. See Figure 7 for the top five reasons given.

Respondents indicated that the top destinations that they would like to access via transit, were:

- Downtown Raleigh (66%),
- Downtown Wake Forest (54%),
- The Rogers Road Shopping Area (37%),
- Joyner Park (36%),
- Downtown Durham (34%),
- South Main Street Wake Forest (34%), and
- Wakefield Commons (33%).

See Appendix A for a full summary of results from the community survey.

In the rider survey, 62% of the 25 people who responded to the question indicated that the primary purpose they take transit (the WFL or WRX) is to get to work, and 21% for shopping or errands. None of the respondents indicated that they used the transit to get school or special events. See Figure 8. “Other” included going to the gym and recreation.

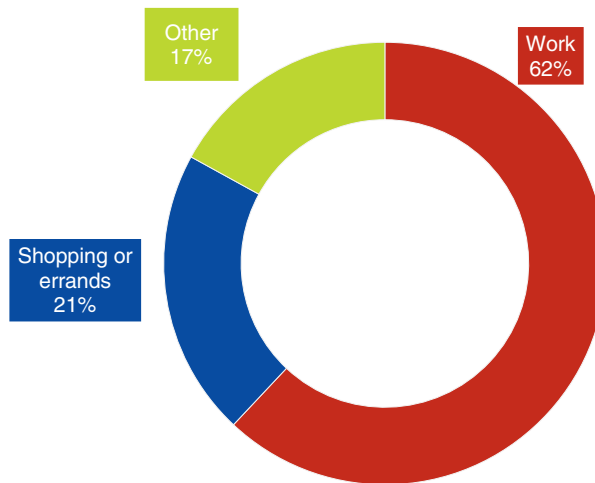
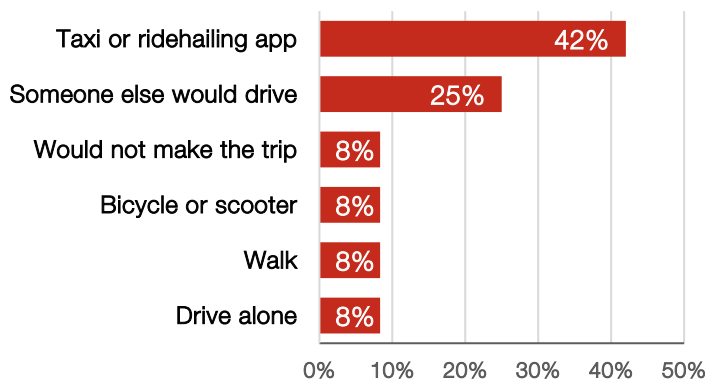


Figure 8. Primary Purposes for Taking Transit, Rider Survey April 2023

The prevalence of riders using transit to get to work, relates to 80% of respondents using transit at least three days per week.



When asked how they would get to their destinations if the WFL or WRX were not available, respondents top two responses were taxi or ridehailing app (42%) and someone else would drive (24%). See Figure 9 for the top six responses.

Figure 9. Alternatives if Transit WFL or WRX Were Not Available, Rider Survey April 2023

Additional key takeaways from the rider survey include:

- 83% of respondents walk to access bus stops,
- The top features desired at bus stops are seating (58%), lighting (54%), and accessible paths (54%),
- 37% of respondents racially identified as Black/African American,
- 79% of respondents are very satisfied or somewhat satisfied with their transit experience, and
- 56% of respondents are from a household making less than \$47,000 per year.

See Appendix B for a full summary of results from the rider survey.

TRANSIT SERVICE ALTERNATIVES

The project team developed transit service alternatives based on five key purposes for transit expansion. The purposes and brief justifications for each purpose are listed below:

- **Serve Northeast Wake Forest**
Identified as a key need in the 2021 Northeast Community Plan, and an area with high transit propensity.
- **Serve Southern Wake Forest**
Based on population growth and high transit propensity.
- **Connect to key activity centers**
Based on community feedback to connect to more destinations.
- **Connect to future S-Line Stations**
Identified as a key connection in 2022 Community Plan and 2021 Northeast Community Plan.
- **Connect to Rolesville**
Identified as a key connection in the FY2025-2030 Wake Bus Plan.

Based on the five key purposes, options for transit expansion were evaluated. Four transit service expansion alternatives were developed by the project team and are described in a series of maps on the following pages.

- **Alternative A**
Two new circulator loops by adjusting the existing WFL.
- **Alternative B1**
New microtransit zone with the WFL.
- **Alternative B2**
An alternative to B1 with a new microtransit zone and Alternative A circulators.
- **Alternative C**
New microtransit zone and elimination of the WFL.

ALTERNATIVE A

Modification of the WFL route to create two loops – **East Loop and West Loop** (Figure 10). The West Loop would largely follow the existing WFL route with some adjustments to add Ligon Mill Road and decrease the WFL length and deviations. The proposed East Loop route would go to destinations that the WFL currently connects to as well as new destinations, such as Joyner Park, the Wake Forest Reservoir, and Flaherty Park. In the Town's core both loops would overlap to provide more frequent service in areas with higher ridership stops on the WFL (see Figure 3). The West Loop is approximately 13 miles and would travel in a counterclockwise direction, and the East Loop is 16 miles in a clockwise direction.

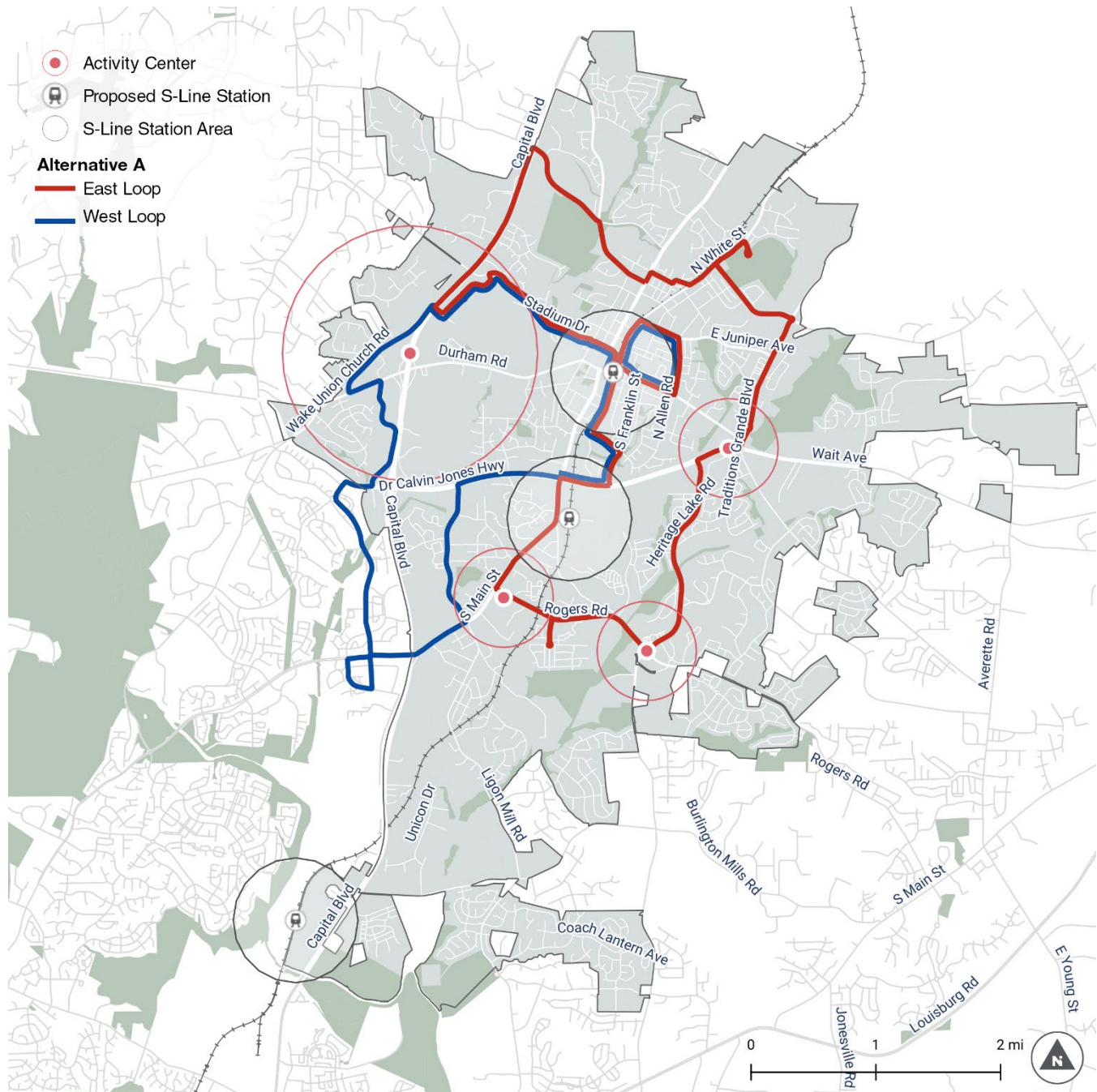


Figure 10. Proposed Transit Alternative – New East Loop and West Loop Circulators

ALTERNATIVE B1

Southern Wake Forest Microtransit Zone + WFL (Figure 11) would provide service to areas in southern Wake Forest via a microtransit service and combine with the existing WFL. This alternative would increase access to destinations through the connection to the current circulator route.

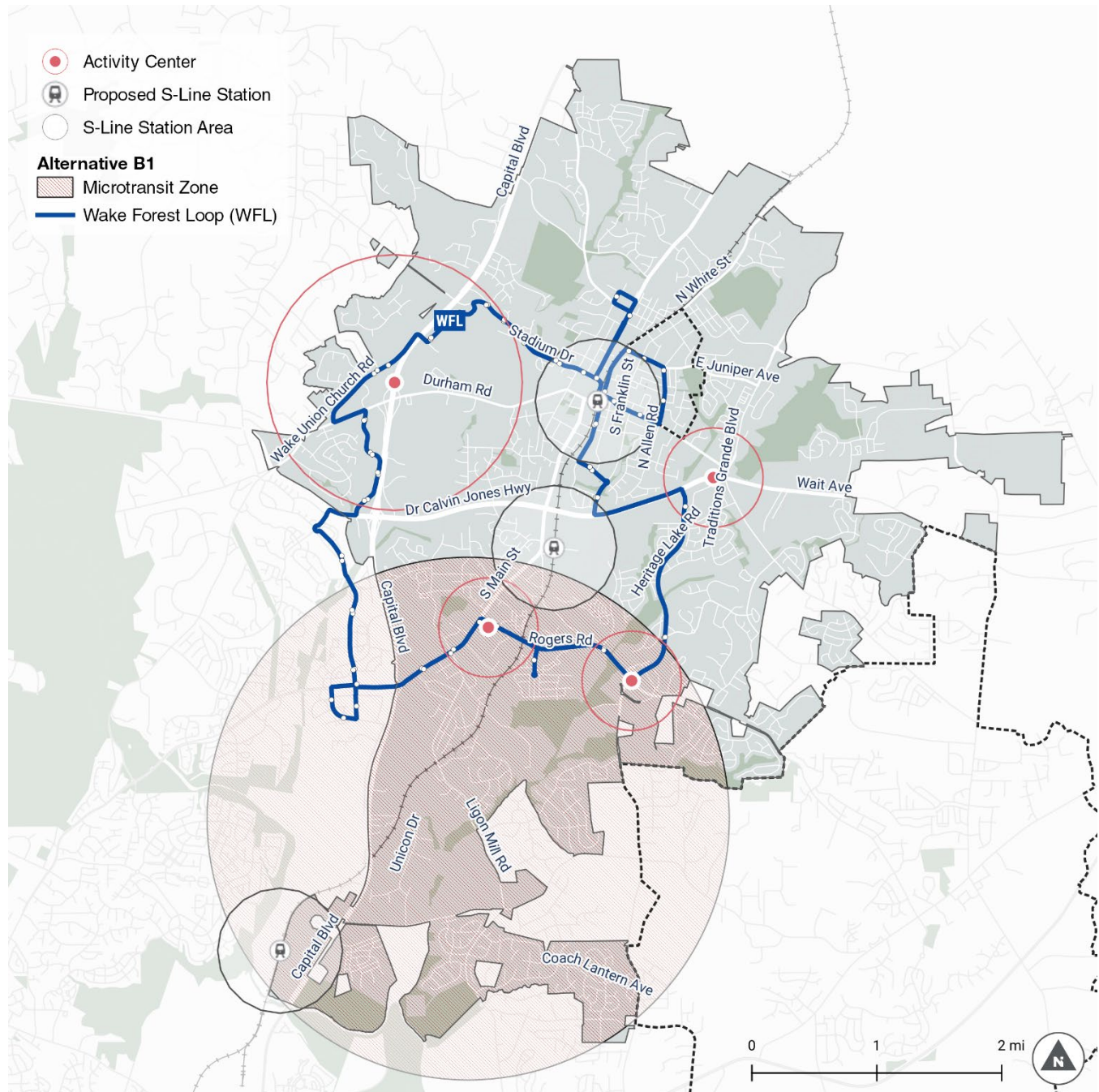


Figure 11. Proposed Transit Alternative – Southern Wake Forest Microtransit and Connection with WFL

ALTERNATIVE B2

Southern Wake Forest Microtransit Zone + Alternative A (Figure 12) would provide service to areas in southern Wake Forest via a microtransit service and combine with the circulator loops proposed in Alternative A. This alternative would increase access to additional destinations, such as Joyner Park, the Wake Forest Reservoir, and Flaherty Park, via a choice of the two circulator loops.

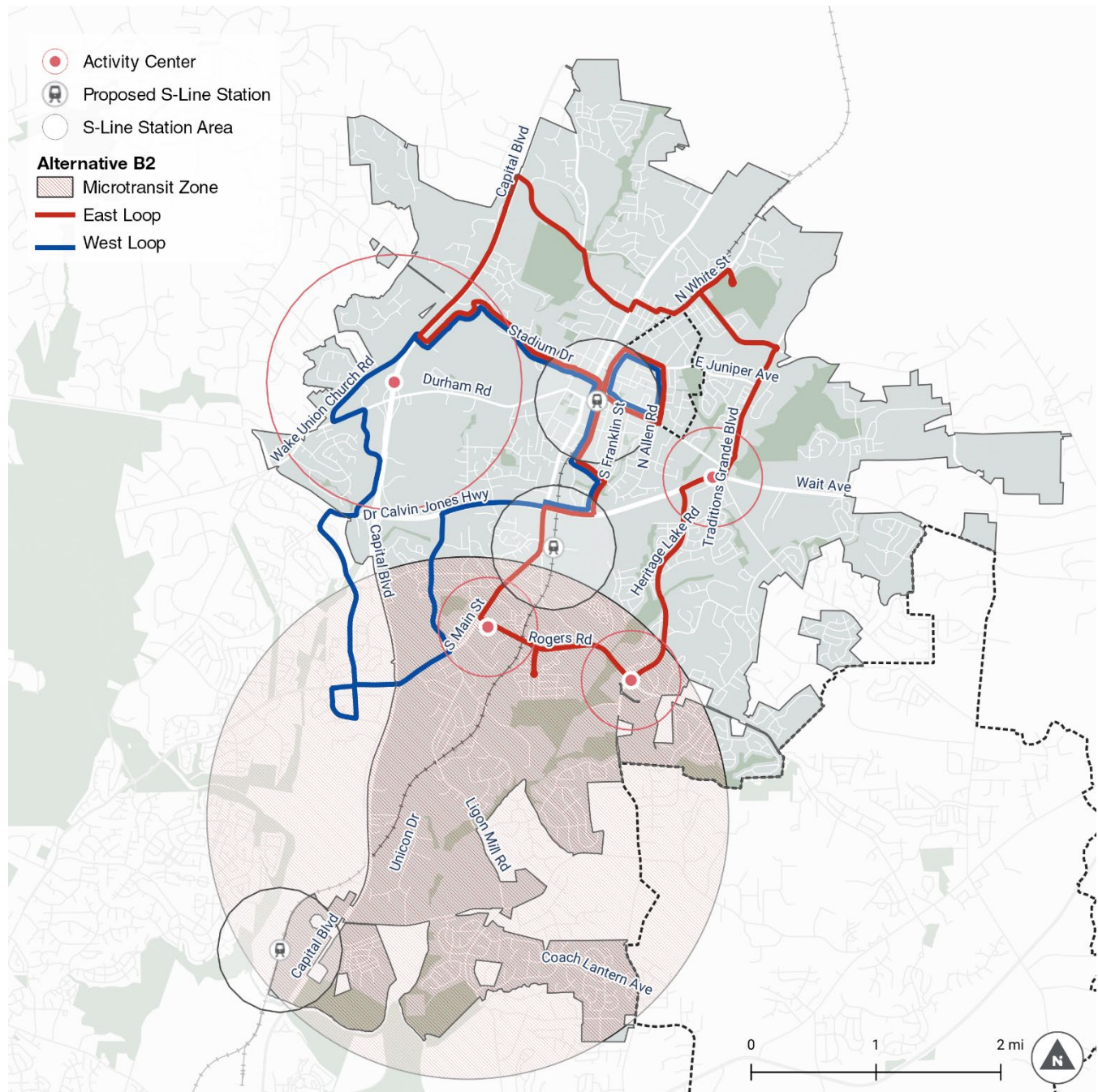


Figure 12. Proposed Transit Alternative – Southern Wake Forest Microtransit and Connection with Alternative A Circulators

ALTERNATIVE C

Wake Forest Microtransit (Figure 13) would be a new microtransit zone that eliminates the WFL and serves all residents and destinations in Wake Forest. The exact boundaries of the microtransit zone would be further refined to include all the Town's boundaries and potentially select destinations outside of the Town when the service is designed for implementation.

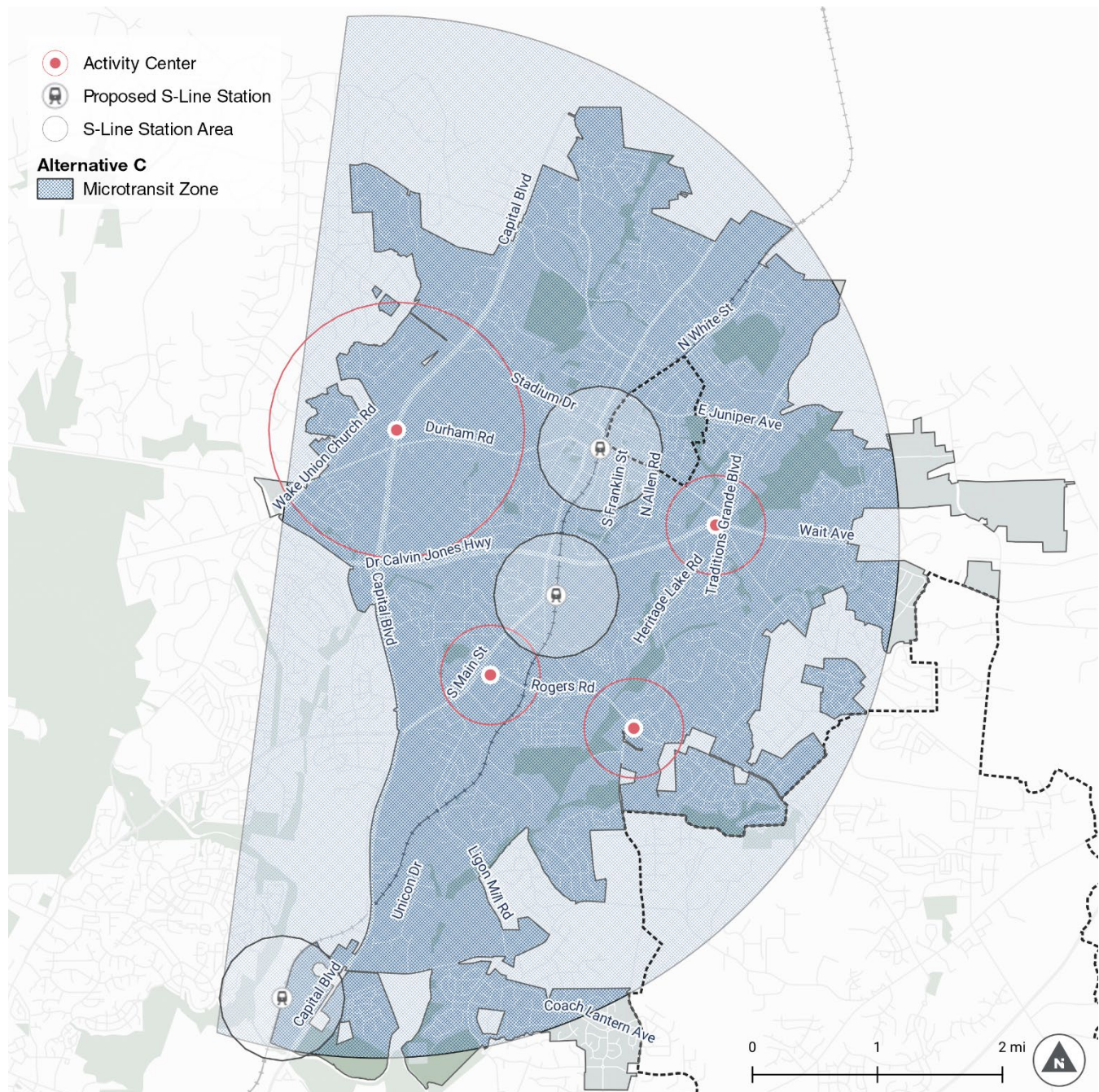


Figure 13. Proposed Transit Alternative – Wake Forest Microtransit

ADDITIONAL CONSIDERATIONS

There are additional considerations of the Transit Plan that go beyond the transit expansion alternatives. These additional considerations include:

- **An expansion of the WRX** to an all-day bidirectional route that would provide additional options for people to travel between Downtown Raleigh and Wake Forest, especially for midday trips for non-work purposes, e.g., going to medical appointments, or shopping.
- **Expanding the WFL** to have a 30-minute frequency to decrease the time that people must wait to get a bus.
- **Extending the Planned Route 2L** to Northeast Wake Forest which is being considered as a new transit service to begin in FY 2029.
- **Rolesville Microtransit** is planned to open in FY 2024 per the FY2025-2030 Wake Bus Plan and could potentially serve specific pick up/drop off nodes within Wake Forest. When it opens, the service will replace the Route 401X. This service could satisfy the transit expansion purpose of connecting Wake Forest to Rolesville

Although these were not considered as part of the transit expansion alternatives, they are potentially viable options that the Town may consider in the future to meet the needs of riders.

Figure 14 illustrates the expanded route additional considerations.

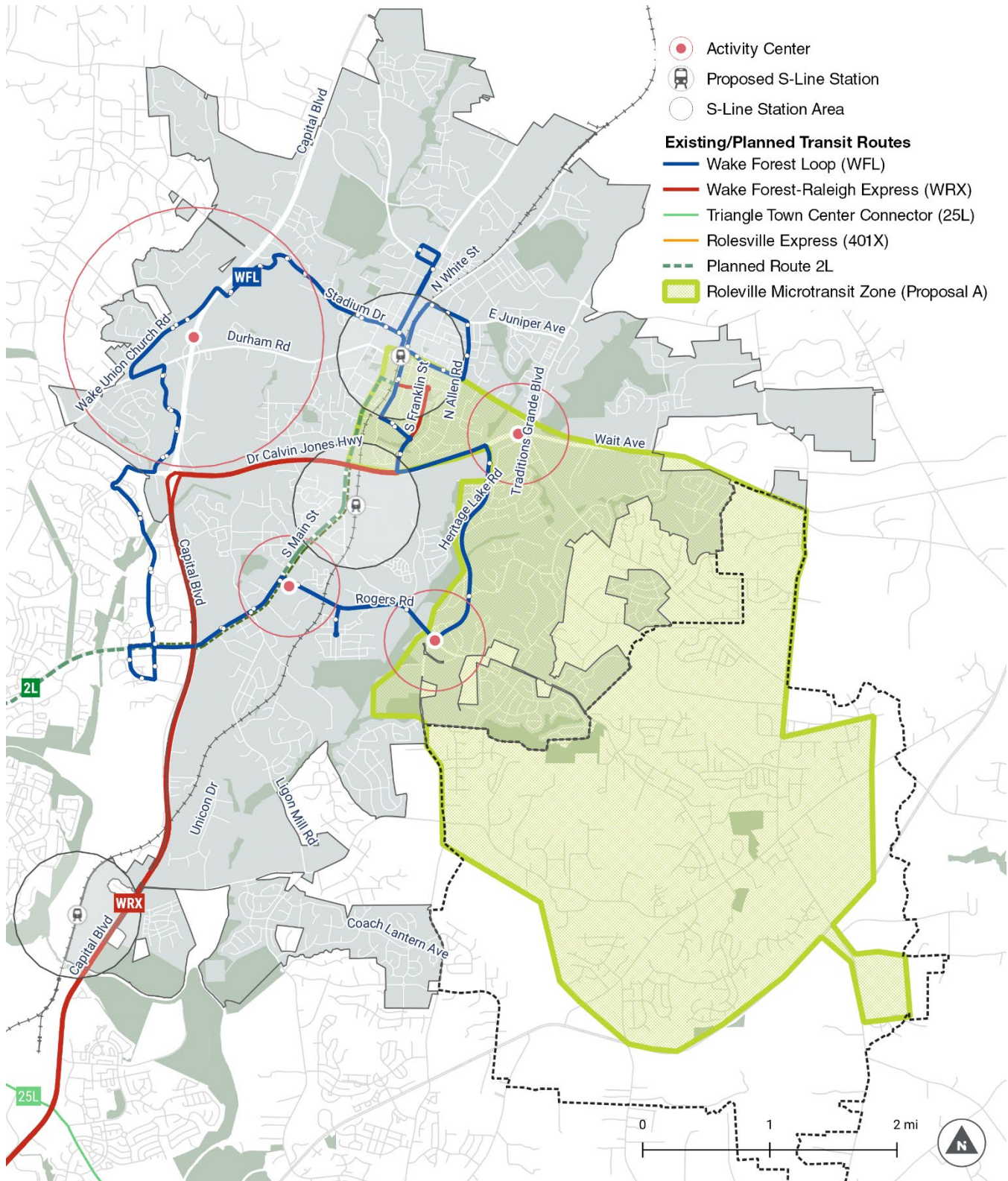


Figure 14. Additional Considerations for Transit Expansion

ALTERNATIVES EVALUATION

The project team evaluated the four alternatives by 1) estimating high-level operating costs for each alternative, 2) assessing how well each alternative met the stated purposes for transit expansion, and 3) summarizing the alternatives' strengths and weaknesses.

HIGH-LEVEL OPERATING COSTS

To compare the alternatives, the project team developed high-level operating costs. These costs are based on initial assumptions about the operating scenario for each alternative and are not final recommendations for how the alternative would operate if implemented.

Table 1 summarizes the comparative high-level operating costs for the alternatives. The annual operating cost for the existing WFL is also provided for comparison. The annual operating cost for Alternative A is similar to the existing WFL's cost (\$1,002,000 for the WFL, compared to \$1,040,000 for Alternative A). This is primarily because the assumption for Alternative A is similar to the existing WFL. The West Loop of Alternative A will operate in a counterclockwise direction, while the East Loop would be clockwise.

Table 1: Summary of High-Level Annual Operating Costs per Alternative

Existing WFL	Alternatives			
	A	B1	B2	C
Loop A \$501,000	West Loop \$520,000	Microtransit \$700,000	Microtransit \$700,000	Microtransit \$1,400,000
Loop B \$501,000	East Loop \$520,000	WFL (A+B) \$1,002,000	Alternative A \$1,040,000	
Total	\$1,002,000	\$1,040,000	\$1,702,000	\$1,740,000

These costs are only for a high-level comparison of the alternatives, not for presented for programing reasons.

ASSUMPTIONS

Circulator

- Circulator operating cost assumes vehicle revenue hour cost of \$109.39 (FY2024 GoRaleigh cost).
- Circulator loops in Alternative A assume the same service times and frequency as the existing WFL.

Microtransit

- Microtransit assumes vehicle revenue hour cost of \$80.
- Microtransit cost is based on number of vehicles needed. Ridership demand is a factor of vehicles needed. Generally, the larger the service area, the more demand. More vehicles will help ensure the service can meet the demand, fulfill more riders, and reduce waiting times for riders.
- Microtransit cost assumes top end of cost range – higher ridership demand and more vehicles – two vehicles for Alternatives B1 and B2; four vehicles for Alternative C.

STRENGTHS AND WEAKNESSES

Table 2 summarizes how well each of the four transit service alternatives meets the five stated purposes for transit expansion in Wake Forest. Alternatives B1, B2, and C all similarly meet four of the five purposes, because they provide transit service coverage to a large part of the Town. Alternative A does not connect to areas in southern Wake Forest, and only connects to a portion of the S-line stations. All the alternatives do not satisfy the purpose to connect to Rolesville because they primarily serve destinations and communities within the Town. The Rolesville Microtransit service being planned for FY 2024 service could provide connectivity between the Wake Forest and Rolesville (see the *Additional Considerations* section above).

Table 2: Summary of Transit Expansion Purpose and Alternatives

	Alternative A	Alternative B1	Alternative B1	Alternative C
Connect to Northeast Wake Forest				
Connect to Southern Wake Forest				
Connect to Activity Centers				
Connect to S-line Stations				
Connect to Rolesville				

Key:  – fully meets the purpose;  – partially meets the purpose;  – does not meet the purpose

Table 3 summarizes the strengths and weaknesses for each alternative. It combines the information in Table 1 and Table 2 to compare benefits and shortfalls of each alternative.

Table 3. Summary of Strengths and Weaknesses for Each Alternative

	Strengths	Weaknesses
A	• Connects to key activity centers and high ridership stops. • Increases service in Town's core. • Shortens the WFL with fewer deviations. • Potentially near neutral operating cost change.	• Changes an established service in the Town (WFL). • Two different routes may cause rider confusion. • Misses the S-Line station and high transit propensity area to the south. • Does not connect to Rolesville.
B1 & B2	• Adds service to high transit propensity area. • Complements circulator service(s) to provide additional connectivity. • Connects to key activity centers, S-Line, and high ridership stops. (B2)	• Higher annual operating cost. • Does not connect to Rolesville.
C	• Connects to all activity centers and S-Line stations. • Opportunity to reallocate circulator cost. • Expands services to places not serviced by WFL. • Potentially attracts more choice riders. • Potentially near neutral operating cost change.	• Discontinues established WFL. • No fixed-route service in the Town. • Does not connect to Rolesville.

PREFERRED OPTION

The project team identified Alternative B2 – East and West Loops and the Southern Wake Forest Microtransit as the preferred option to expand transit services in Wake Forest. For the preferred option, the East Loop in Alternative B2 was adjusted to shorten the route length and ensure a shorter travel time to complete the route. The shortened East Loop would not provide service to areas that had low ridership on the WFL along Rogers and Heritage Lake roads (see Figure 3). This alternative would meet the Town’s goals to expand transit service for its residents, employees, and visitors by modifying the WFL route to create two loops – East Loop and West Loop combined with a new microtransit service zone in southern Wake Forest. The WRX would continue operating as it does today to provide express service between Wake Forest and downtown Raleigh.

OPERATING CHARACTERISTICS

The project team developed operating characteristics for the two transit services – the East and West loop circulators, and the microtransit zone.

CIRCULATORS

The East and West loops would operate as circulators. The recommended operating characteristics are summarized in Table 4. The loops would have a small adjustment to the WFL’s operating hours and frequency. They will provide service 6:00 a.m. to 9:00 p.m. Monday through Saturday, with no service on Sunday. The frequency on each loop will be 60 minutes. Compared to the WFL, this service recommendation standardizes the operating times and can help riders understand and predictably expect the circulators. It will be easier for riders to understand and remember that a bus comes every hour 6:00 a.m. to 9:00 p.m., Mondays to Saturdays.

Table 4: East and West Loops Operating Characteristics

Characteristic	Recommendation
Route Length	12 miles (East Loop) 13 miles (West Loop)
Direction	Clockwise (East Loop) Counterclockwise (West Loop)
Frequency	Every 60 minutes
Days of Operation	Monday to Saturday
Span of Hours	6:00 a.m. to 9:00 p.m.
Cost to Riders	Free
Vehicle Type	40-ft buses
Vehicles Needed	2

The circulators' level of service and quality of service provided to riders can be further improved by increasing the frequency (how many times the bus comes per hour) of the routes. A higher frequency decreases the time riders must wait to get on the bus. To increase the frequency additional vehicles will be needed for each route. The recommendations in Table 4 assume two buses total – one for each loop. If the routes had an additional bus (two buses for each route), the frequency can be increased to two buses per hour, or service every 30 minutes.

MICROTRANSIT

The microtransit zone in southern Wake Forest would provide transit service in an area of the Town with a primarily residential land use and curvilinear street network that is not very conducive for fixed-route transit. The Southern Wake Forest Microtransit zone would allow residents to use an on-demand service to get to and from destinations within southern Wake Forest, and the Wakefield neighborhood of Raleigh. Riders would be able to transfer between the microtransit service and the West Loop to connect between other destinations in the Town.

The project team developed assumptions about the operating characteristics for the microtransit zone, summarized in Table 5, however, additional analysis will be needed to develop the best operational strategy for the service. Unlike the circulator service which is based on an existing service (the WFL), the southern microtransit zone would be a new service for Wake Forest. Before launching the microtransit service, the Town will need to conduct additional planning and coordination with a third party microtransit service operator to determine the best service characteristics for southern Wake Forest.

Two sets of assumptions are made about the operating characteristics for the microtransit service: 1) a door-to-door service that picks up and drops off riders at any destinations within the zone, or 2) node-to-node service that only picks up and drops off riders at established nodes located within the zone. In a door-to-door service, riders can request microtransit vehicles pick them up at a specific location or address within the zone (e.g. at their home) and be transportation to another specific location or address within the zone (e.g. school). Riders will not have to travel long distances to access the service. The microtransit service operator can combine trips for riders traveling to the same or nearby locations to create a shared ride – one vehicle or trip taking more than one riders to the same or nearby destinations. However, shared rides are not very common because it is not very likely that riders will be traveling to the same or nearby destinations, and small 6-8 person vehicles are usually used.

In a node-to-node service, riders would have to travel longer distances to access the microtransit service at locations such as existing or new bus stops or key activity centers. The node-to-node service can help streamline the operations by making trips more predictable and increasing the likelihood of shared rides. Because of the increased likelihood of shared rides, larger vehicles are assumed for the node-to-node service. The microtransit service would have similar operating hours as the WFL – standardized hours Mondays to Saturdays.

Table 5: Southern Microtransit Zone Operating Characteristics

Characteristic	Door-to-Door Assumptions	Node-to-Node Assumptions
Days of Operation	Monday to Saturday	Monday to Saturday
Span of Hours	6:00 a.m. to 9:00 p.m. (Monday to Saturday)	6:00 a.m. to 9:00 p.m. (Monday to Saturday)
Cost to Riders	\$2.00 (free for youth, seniors, people with disabilities)	Free
Stops	N/A	16 nodes
Vehicle Type	Minivan	16-seat cutaway

ROUTE ALIGNMENT AND ZONE

CIRCULATORS

The project team recommends operating the East Loop in the clockwise direction and the West Loop counterclockwise. There are fewer infrastructure improvements needed to install bus stops when travelling in the clockwise direction in the East Loop and counterclockwise operation in the West Loop avoids challenging left-turn movements.

The East and West loops would provide access to several destinations. Key destinations include:

East Loop

- Downtown Wake Forest Historic District
- Flaherty Park and Community Center*
- Joyner Park and Community Center*
- Kiwanis Park
- Retail and restaurants at E Roosevelt Avenue and Brooks Street
- Shopping Center at Gateway Commons Circle and Dr Calvin Jones Highway
- Envision Science Academy*
- United States Postal Service at S White Street and E Holding Avenue
- Wake Forest Community Library
- Wake Forest Historical Museum
- Wake Forest Reservoir*
- Wake Forest Sprayground
- Wake Forest Crossing Shopping Center
- Wake Forest High School

West Loop

- Downtown Wake Forest Historic District
- Forest Pines Elementary School
- Shopping Center at Dr Calvin Jones Highway and Ligon Mill Road*
- Kiwanis Park
- Northeast Regional Library
- North Forest Pines Elementary School
- North Wake College and Career Academy
- Shoppes at Wake Forest Shopping Mall
- Shopping Center at Forest Pines Drive and Common Oaks Drive
- Shops and Restaurants at Center S Main Street and Carter Street
- Shops at Ligon Mill Road (Dr Calvin Jones Highway to S Main Street)*
- Shops at Retail Drive
- Wakefield Commons Shopping Center
- Wake Forest Community Library
- Wake Forest Crossing Shopping Center
- Wake Forest High School
- Wake Forest Historical Museum
- Wake Forest Sprayground

* new destinations that the WFL does not serve currently

The new circulators will provide access to six additional key destinations compared to the WFL. Existing bus stops will serve the locations that are currently served by the WFL, however, new stops will be needed for the new destinations. The project team identified the need for 15 new potential bus stops. Before the new circulators are implemented, bus stops will need to be installed to serve these destinations, and evaluation of sidewalks, bus pads, and safe crossings is needed to determine final stop locations.

MICROTRANSIT

There are several key destinations within the Southern Wake Forest Microtransit Zone that riders would be able to access. While, the final boundaries of the zone will need to be refined before launching the service, destinations in the Southern Wake Forest Microtransit Zone include:

- Endeavor Charter School
- Goddard School of Wake Forest
- Heritage High School
- Heritage Middle School
- Northeast Regional Library
- Primrose School of Heritage Wake Forest
- Shops at Ligon Mill Road and S Main Street
- Shopping Center at Forestville Road and Rogers Road
- Shopping Center at S Main Street and Wake Drive
- Shopping Center at Rogers Road and Heritage Center Drive
- Wakefield Commons Shopping Center

The service can be operated as a door-to-door service, or a node-to-node service. For the node-to-node service, the project team has identified 16 potential nodes that are located in residential areas and near key destinations so riders can access the service from their home and access retail areas, parks, schools, and other activity areas, and transfer between the West Loops to access additional destinations throughout the Town. The nodes, in no particular order are:

1. Commons Oaks Drive and Oliver Road
2. Endeavor Charter School
3. Forest Pines Drive and John Rex Boulevard
4. Forestville Road and Rogers Road
5. Crossings at Heritage
6. Heritage High School
7. Ligon Mill Road and Lariat Ridge Drive
8. Ligon Mill Road and S Main Street
9. Ligon Mill Road Porto Fino Avenue
10. Marshall Farm Street and Heritage View Trail
11. Richland Creek Church
12. Rogers Road and Heritage Center Drive
13. Shearon Farms
14. Song Sparrow Dr
15. Stonegate
16. Wake Drive and S Main Street

Figure 15 illustrates the preferred transit service option with the East and West loops, and nodes for the microtransit zone.

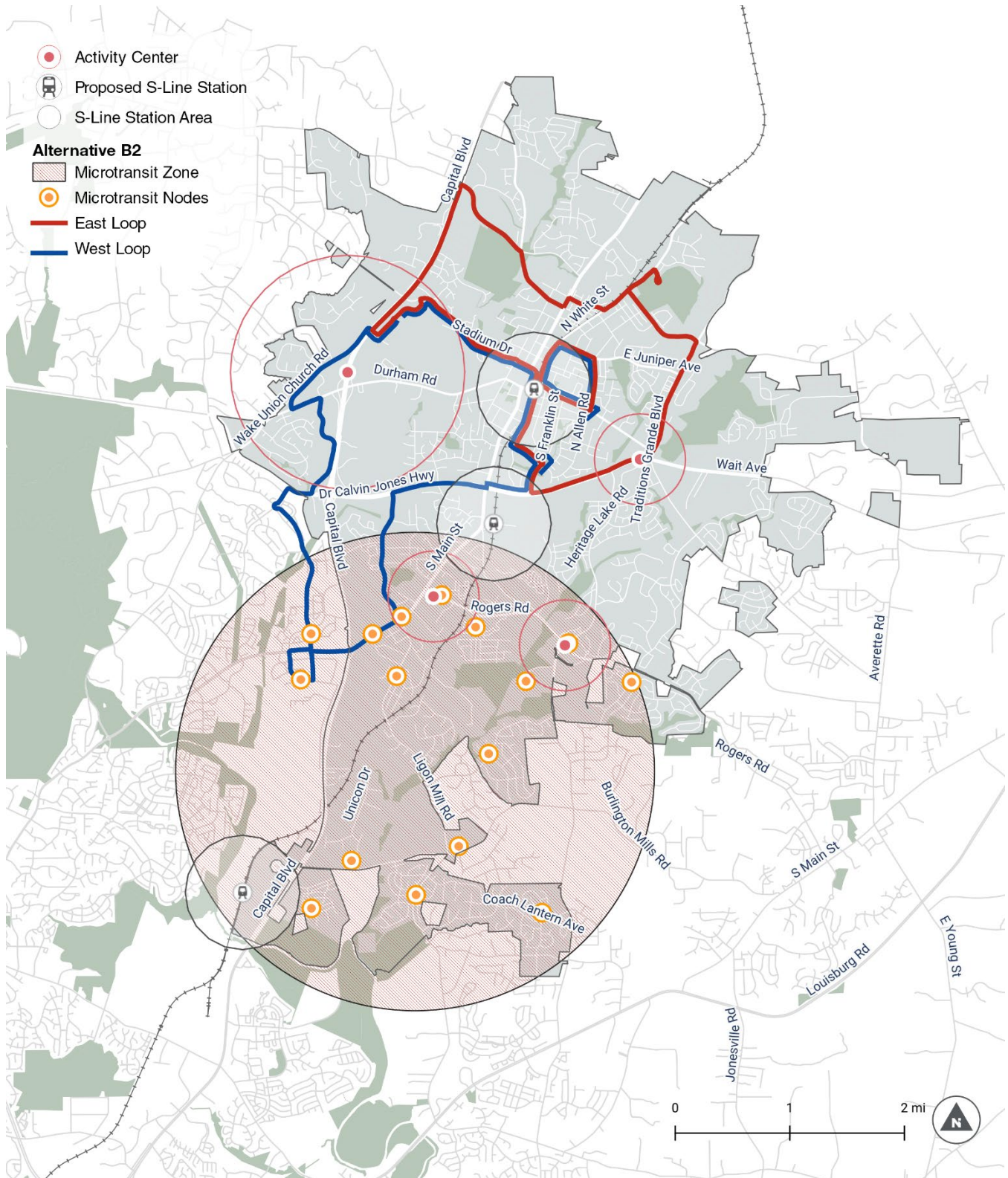


Figure 15. Preferred Option

PREFERRED OPTION FEASIBILITY

The project team developed planning-level costs to understand the level of resources that is likely needed to start-up and operate the preferred transit option. These costs are high-level costs and are the project team's opinion of likely costs based on information and assumptions made during the planning study.

PLANNING-LEVEL COSTS

CAPITAL COSTS

The capital cost for initializing the preferred transit option is primarily for the installation of new bus stops on the circulator routes and the microtransit node-to-node service. Since the routes are adjustments to the WFL, the existing bus can be used for the new routes, primarily on the West Loop. The project team identified the need for 15 new stops, however, additional analysis is needed to evaluate the specific need for each bus stop and its location. Additionally, as new developments open and expand in the future, the Town will evaluate the need for new bus stops. The planning-level cost estimated to implement the 15 bus stops is approximately \$180,000. This cost assumes a general unit cost per bus stop of \$12,000, however the range of costs can be between \$5,000 to \$19,000 per stop. The cost will depend on the needs at each specific bus stop, such as sidewalk connections, concrete pads, right-of-way, post and signage, shelters, benches, and trash receptacles.

For the microtransit service (if deployed as a node-to-node service) 10 of the 16 nodes will require a bus stop with a concrete pad and shelter to provide a comfortable place for riders to wait to access the microtransit service – the remaining six are existing WFL bus stops that have a pad and shelter. The planning-level cost estimated to implement 10 bus stops is approximately \$190,000. This cost assumes a general unit cost per bus stop of \$19,000 to account for the higher costs of a concrete pad, shelter, and potentially right-of-way needs.

OPERATING COSTS

The project team's opinion of the planning-level total annual operating costs for the preferred option is between \$1,337,000 and \$3,016,000. This is the cost to operate both circulator routes (East and West loops) and the Southern Wake Forest Microtransit. The range is dependent on a 60-minute or 30-minute frequency for the West Loop and a low or high demand for the microtransit service (a higher frequency and a higher microtransit demand is on the high-end of the cost range). The section below provides costs for several options that the Town can use to identify the best level of service based on available funding.

Circulators

The operating costs for the circulators are based on the cost to operate the WFL. **Table 6** outlines the current operating characteristics for the WFL (A and B loops) and the annual operating cost assumed by the Town of Wake Forest and GoRaleigh for FY 2024. The total cost for the WFL's Monday to Friday and Saturday service is approximately \$1,002,000 (\$854,000 for weekday service, and \$148,000 for Saturdays). The cost is based on a unit operating cost set by GoRaleigh of \$109.39 per vehicle hour. These factors are assumed as the basis to develop an opinion of planning-level operating cost for the East and West loops.

Note, approximately 17% of the WFL operates in the City of Raleigh (based on the route's length), therefore the cost to the Town of Wake Forest is 83% of the total cost – approximately \$832,000.

Table 6: WFL Operating Cost (FY2024) for A and B Loops

	Monday to Friday	Saturday
Route Length (miles)	16 (one-way for each loop)	16 (one-way for each loop)
Frequency (minutes)	65 minutes	75 minutes
Revenue Hours per Day	14	12
Number of Vehicles	2 (one for each loop)	2 (one for each loop)
Vehicle Revenue Hours per Day	28	24
Total Vehicle Hours per Day ¹	30	30
Days per Year ²	260	52
Vehicle Revenue Hours per Year	7,800	1,352
Annual Operating Cost ³	\$854,000	\$148,000
Cost per Vehicle Hour	\$109.39	\$109.39

¹ Includes one hour of deadhead per day for each vehicle to account for travel to and from bus garage.

² Average weekdays and Saturdays per year.

³ Rounded up to the nearest 1,000ths (assuming the current cost-splitting arrangement continues in a similar fashion).

Table 7 summarizes the assumptions and the planning-level annual operating costs for East and West loops. The routes have a similar travel time, therefore the costs are identical – \$550,000 per year for each loop (\$1,100,000 total). Like the WFL, approximately 17% of the West Loop route length operates in the City of Raleigh, therefore the project team assumes that under a similar agreement between Raleigh and Town of Wake Forest, the cost of the West Loop to the Town is 83% of the total cost – \$457,000 for a total of \$1,007,000 for both loops (assuming the current cost-splitting arrangement continues in a similar fashion).

Table 7: Estimated Annual Operating Cost for Circulator – 60-minute Frequency

	West Loop (Counterclockwise)	East Loop (Clockwise)
Route Length (miles)	12 (one-way)	13 (one-way)
Frequency (minutes)	60	60
Revenue Hours per Day ¹	15	15
Number of Vehicles	1	1
Total Hours per Day	15	15
Total Vehicle Hours per Day ²	16	16
Days per Year ³	312	312
Vehicle Revenue Hours per Year	4,992	4,992
Cost per Vehicle Hour ⁴	\$109.39	\$109.39
Annual Operating Cost	\$550,000	\$550,000
Annual Operating Cost (minus City of Raleigh Portion – 17%)	\$457,000	\$550,000
Total Annual Operating Cost ⁵	\$1,007,000	

¹ 6:00 a.m. to 9:00 p.m.

² Includes one hour of deadhead per day for each vehicle to account for travel to and from bus garage.

³ Average weekdays and Saturdays per year.

⁴ Based on FY2024 cost per revenue hour for GoRaleigh fixed route.

⁵ Assumes the cost-splitting arrangement between Raleigh and the Town of Wake Forest continues in a similar fashion.

One option discussed in the *Operating Characteristics* to improve the level of service is to increase the number of vehicles on the loops to provide a 30-minute frequency. Table 8 summarizes the costs if both loops had two vehicles each. The total cost to Wake Forest for operating both loops would be \$2,013,000.

Table 8: Estimated Annual Operating Cost for Circulator – 30-minute Frequency

	West Loop (Counterclockwise)	East Loop (Clockwise)
Route Length (miles)	12 (one-way)	13 (one-way)
Frequency (minutes)	30	30
Revenue Hours per Day ¹	15	15
Number of Vehicles	2	2
Total Hours per Day	16	16
Total Vehicle Hours per Day ²	32	32
Days per Year ³	312	312
Vehicle Revenue Hours per Year	9,984	9,984
Cost per Vehicle Hour ⁴	\$109.39	\$109.39
Annual Operating Cost	\$1,100,000	\$1,100,000
Annual Operating Cost (minus City of Raleigh Portion – 17%)	\$913,000	\$1,100,000
Total Annual Operating Cost	\$2,013,000	

¹ 6:00 a.m. to 9:00 p.m.

² Includes one hour of deadhead per day for each vehicle to account for travel to and from bus garage.

³ Average weekdays and Saturdays per year.

⁴ Based on FY2024 cost per revenue hour for GoRaleigh fixed route.

Microtransit

The operating costs for the microtransit are based on comparative microtransit services in Town of Wilson, North Carolina; City of Chandler, Arizona; and Town of Morrisville, North Carolina. The services in Wilson and Chandler are run as door-to-door services, and Morrisville has a node-to-node service. Table 9 outlines the operating characteristics of the comparative services and their annual operating cost. The comparative services costs range from \$65 to \$103 per revenue hour. On the low-end (\$65) is the Wilson door-to-door service, and the high-end is Morrisville node-to-node service. Although node-to-node services are expected to have lower operating costs due to efficiencies gain by streamlining pick-up and drop-off locations, the Morrisville service cost may be higher due to having a mix of operators – GoCary vehicles and third-party (Via) application and a larger vehicle requiring specialized maintenance and commercial driver license – a 16-seat cutaway.

For the purposes of estimating planning-level costs for the Southern Wake Forest Microtransit, the project team escalated the comparative services cost per revenue hour by 5%, therefore the range of costs used for the microtransit cost opinions were rounded up from the inflated \$69 to \$108 range to \$70 to \$110 per revenue hour.

Table 9: Comparative Microtransit Services

	Wilson, NC ¹	Chandler, AZ ¹	Morrisville, NC
Service Type	Door-to-door – Town-wide (~32 sq. miles)	Door-to-door – sub-area (~40 sq. miles)	Nodes (16)
Operating Hours	M-F, 5:30 am to 7 pm Sa, 7 am to 6 pm	M-F, 5:30 am to 9 pm	M-F, 7 am to 9 pm Sa, 8 am to 8 pm Su, 8 am to 7pm
Vehicle Type	Minivan	Minivan	16-seat cutaway
Fare	\$2.50	\$2.00	Free
Ridership	161,204	24,976	21,445
Operator	Via	Via	GoCary ops; Via app
Annual Revenue Hours	27,830	9,111	6,521
Annual Operating Cost	\$1,820,000	\$741,325	\$671,652
Cost per Revenue Hour	\$65	\$81	\$103
Cost per Revenue Hour Inflated by 5%	\$69	\$85	\$108

Information about comparative microtransit systems was collected in July, 2023 from each service provide and is based on Fiscal Year 2023 data for each service.

¹ Wilson, NC and Chandler, AZ data is a based on 10 months in FY 2023 (July 2022 to April 2023).

Table 10 summarizes the assumptions and the planning-level annual operating cost for the Southern Wake Forest microtransit zone as a door-to-door service and a node-to-node service. Demand is a driving factor of microtransit operating cost. A higher demand means more riders are looking to ride the service and how well the service is meeting demand is indicated by the length of time riders must wait to get a ride. If demand is high, the service will need more vehicles operating at peak times to meet the demand to provide rides when needed with minimal wait times. Lower wait times mean a high level of service is being provided; however, the more vehicles operating at peak times means a higher microtransit operating cost.

To fully understand and estimate the likely demand for a new microtransit service, additional planning and coordination with a third party microtransit service operator is needed to model the service operations. Therefore, for the planning-level cost opinions, two levels of service scenarios (low demand and high demand) are provided for each microtransit service type, determined by the number of peak vehicles required. For the door-to-door service the annual operating cost is between \$310,000 to \$990,000 and \$520,000 to \$1,003,000 for node-to-node service.

Table 10: Southern Wake Forest Microtransit Zone Planning-Level Annual Operating Cost

	Door-to-Door Assumptions		Node-to-Node Assumptions	
	Low Demand	High Demand	Low Demand	High Demand
Revenue Hours per Week ¹	90	90	90	90
Peak Vehicles ²	1	3	1	2
Vehicle Hours per Week	90	270	90	180
Vehicle Hours per Year	4,680	14,040	4,680	9,360
Cost per Vehicle Hour	\$70	\$70	\$110	\$110
Annual Operating Cost (rounded)	\$330,000	\$990,000	\$520,000	\$1,003,000

¹ Revenue hours per week is the same for all microtransit service assumptions because each service would operate from 6:00 a.m. to 9:00 p.m. Monday to Saturday (15 hours per day for 6 days per week).

² Vehicles needed for peak service determined by level of demand. More vehicles are needed to make more trips and decrease riders' wait times. More detailed modeling and analysis is needed to estimate demand and required number of vehicles.

FUNDING OPPORTUNITIES AND PARTNERSHIPS

To implement the expanded transit services, the Town will need to continue partnerships with regional transit operators and seek funding programs. Operating the transit service with a paid fare system can also allow the Town to offset some of the cost to provide the services. The project team recommends several potential funding opportunities and partnerships.

IMPLEMENTATION PARTNERSHIPS

The project team recommends that the Town of Wake Forest partner with a local transit provider, such as GoRaleigh, GoTriangle, or other, to operate the East and West loops. This is consistent with ongoing operations for the WFL (operated by GoRaleigh); therefore allowing the Town to negotiate with GoRaleigh to operate the East and West loops under similar contract terms. Cost estimates in this Plan for both circulator operating costs are based on assumptions using the existing contract.

For the microtransit service, the project team recommends the Town partner with a third party microtransit operator, such as Via, or a transportation network company such as Uber or Lyft. These third party operators provide a turnkey operation. Turnkey operation is advantageous, especially when implementing a new microtransit service, because the operator provides all aspects of the service – vehicles, IT, operations management, drivers, etc.

COMMUNITY FUNDING AREA PROGRAM (CFAP)

The Community Funding Area Program (CFAP) was created as a result of the Wake County Transit Plan to provide financial support to eligible organizations to accelerate public transportation services and programs. The Town of Wake Forest is among 11 eligible Community Funding Areas but must participate in a competitive process to receive funding for planning, capital, and/or operating expenses.

The CFAP requires all projects provide a minimum funding match of 50% of the total project costs. The matching requirement is the same for operating, capital, and planning projects. There are no restrictions on the funding source used to match CFAP resources. The Town may use federal, state, or local funding sources (local property tax, sales tax, fees, other revenues, etc.) to meet the CFAP match requirements. The Town should note that accepting funds from federal or state programs have separate application processes and reporting requirements that are in addition to the CFAP. The application process renews annually. A representative of the Town must attend an applicant training session that provides an overview of procedures and addresses issues that are relevant to the upcoming call for projects. A representative of the Town must also attend a pre-submittal application review meeting during which CAMPO staff will advise the Town on application completeness.

CFAP funds can be used for operational costs, bus stops and amenities, and projects that provide access to bus stops. Currently, \$420,000 from CFAP is provided annual for the operating costs of the WFL. In any year, no single municipality may have greater than 30% of the CFAP allocation in that year, and currently the cap is \$550,000. Therefore, the Town is only eligible to receive an additional \$130,000 from CFAP.

LOCALLY ADMINISTERED PROJECTS PROGRAM (LAPP)

The Locally Administered Projects Program (LAPP) is a competitive capital funding program managed by CAMPO. Projects are funded using various federal funding sources and require a minimum 20% local match. CAMPO member jurisdictions including the Town are eligible to apply for these funds. Projects are scored

according to published criteria. For transit projects these include Safety & Security, Rider Experience, Connectivity, Improves Facilities, Reliability Improvements, Benefit/Cost, and Planning Consistency.

FEDERAL GRANTS FOR BUSES AND BUS FACILITIES FORMULA PROGRAM – 5339(A) AND URBANIZED AREA FORMULA GRANTS – 5307

The 5339 program provides funding to states and transit agencies through a statutory formula to replace, rehabilitate and purchases buses and equipment to construct bus-related facilities. The 5307 program provides funds for operating transit service, including bus purchases and stop improvements. These formula-based programs could be a source of funds to support eligible capital and operating expenses related to the Town of Wake Forest's planned transit service, however, coordination with an eligible recipient (i.e. the transit agency) will be necessary.

FAREBOX RECOVERY FEASIBILITY

The project team recommends a free fare for riders on the circulator, however, for the planning study an estimate of potential revenue from adding a fare to the service was developed. The project team assumed a range of potential farebox recovery rates for the service. From a low rate of 10%, medium 15%, and high 35%. This range is based on average farebox recovery rates for transit systems across the county. The national average farebox recovery in 2021 was 12.8%, a recently low rate due to impacts of the COVID-19 pandemic.⁶ In 2019, the national average farebox recovery was 32.3%.⁷ Table 11 summarizes the potential net annual operating cost for each of the circulator routes at low, medium, and high farebox recovery rates. If a fare is implemented on the 60-minute circulator service, the operating cost could be reduced from \$1,007,000 to between \$654,500 to \$906,300.

Table 11: Potential Circulator Farebox Recovery

	60-minute Frequency			30-minute Frequency		
	East Loop	West Loop ¹	Total	East Loop	West Loop ¹	Total
Gross Annual Operating Cost	\$550,000	\$457,000	\$1,007,000	\$1,100,000	\$913,000	\$2,013,000
Low Recovery Net Annual Operating Cost	\$495,000	\$411,300	\$906,300	\$990,000	\$821,700	\$1,811,700
Medium Recovery Net Annual Operating Cost	\$467,500	\$388,450	\$855,950	\$935,000	\$776,050	\$1,711,050
High Recovery Net Annual Operating Cost	\$357,500	\$297,050	\$654,550	\$715,000	\$593,450	\$1,308,450

¹ Cost for West Loop to the Town of Wake Forest (minuses the City of Raleigh's portion – 17%)

⁶ 2021 National Transit Summaries and Trends , <https://www.transit.dot.gov/ntd/data-product/2021-national-transit-summaries-and-trends-ntst>

⁷ 2019 National Transit Summaries and Trends, <https://www.transit.dot.gov/ntd/2019-national-transit-summaries-and-trends-ntst>

A fare for the rider is assumed for the microtransit service (\$2.00 per ride). Therefore, the microtransit operating costs will be offset by the revenue generated from rider fares. To estimate likely fare revenue for the service, modeling of the planned service is needed, however, the project team has made some assumptions to demonstrate potential revenue to Wake Forest for operating the service. Table 12 summarizes potential ridership levels for the microtransit and resultant farebox revenue. The 2022 ridership on the WFL is used as a basis for the potential microtransit ridership, and then factored by 50%, 100%, and 150%, for an estimate of potential low, medium, and high ridership. With these assumptions, the fare revenue for the microtransit service is between \$20,200 and \$60,600.

Table 12: Potential Microtransit Fare Revenue

	Low Ridership	Medium Ridership	High Ridership
WFL 2022 Ridership	20,200	20,200	20,200
Ridership Factor	50%	100%	150%
Microtransit Ridership	10,100	20,200	30,300
Microtransit Fare Revenue	\$20,200	\$40,400	\$60,600

NEXT STEPS

The next steps for the Town to implement the expanded transit services are identifying potential funding for the capital and annual operating costs, entering contracts with partners to operate the services, and deploying communication strategies to broadcast to the availability of the new services to area residents, employees, and visitors.

ACTION ITEM MATRIX

Specific actions are needed to implement the expanded transit services and ensure the continued growth in quality and level of service. Table 13 outlines the actions along with the recommended timeline when they should be implemented.

Table 13: Action Item Matrix

Action	Description	Timeline			
		Ongoing	Year 1-2	Year 3-4	Year 5
1	Secure additional funding for preferred transit service option operations.	X	X		
2	Procure contract for microtransit service.		X		
3	Implement new bus stops.		X		
4	Develop marketing and branding for new transit services.		X		
4	Conduct targeted outreach and marketing.		X		
5	Conduct community wide outreach and marketing.	X	X		
6	Add specialized messaging to bus stops.		X		

Action		Description	Timeline			
			Ongoing	Year 1-2	Year 3-4	Year 5
7	Track performance metrics for extended transit services.	Collect ridership by bus stop, boarding and alighting (circulators), and trip lengths, origin and destination trips, wait times, and number of trips (microtransit) monthly.	X			
8	Report performance metrics for extended transit services.	Develop and present annual reports on performance metrics.	X			
9	Analyze ridership data for system optimization.	Analyze bus stop ridership (circulator), and trip origin and destination (microtransit) to identify opportunity for enhanced bus stop amenities, new bus stops/nodes, adjustments to routes, and adjustments to microtransit service area.			X	



Wake Forest Public Transit Plan

Phase 1 Outreach Summary

Prepared for the Town of Wake Forest

by Public Participation Partners

In Coordination with Toole Design

March 2023

Introduction

Phase 1 Outreach Background

The Town of Wake Forest continues to receive requests for additional services and amenities throughout town. In response to resident requests for more services and amenities, the Town of Wake Forest is developing a Public Transit Plan. The purpose of the Public Transit Plan is to:

- 1) evaluate existing service
- 2) understand the viability of alternatives to fixed-route services
- 3) recommend a solution for transit expansion, including the service model type, cost of expansion, and implementation steps

To better understand how well existing services are working for the public and to consider potential alternatives, Phase 1 of this engagement process was designed to share information and invite feedback to inform the Wake Forest Transit Plan. Phase 1 engagement included a pop-up event, an open house, and a survey of current and potential riders.

This engagement invited public feedback on existing service. It also asked for interest in future service, and options for transit expansion. Phase 1 outreach for the Wake Forest Transit Plan began on December 1st of 2022 and ended on February 19th of 2023.

December 2022 Pop-Up Summary

On December 2, 2022, the project team attended the Lighting of Wake Forest holiday event. This popup aimed to provide information and gather feedback for the Wake Forest Public Transit Plan. The pop-up took place from 5:00 pm through 8:00pm on East Owen St.

To draw people to the table, staff gave out glow sticks and candy. Attendees were invited to place a sticker on a map to indicate where they would like to be able to travel to via bus. Participants could also leave written comments with any thoughts or concerns on a posted board. They could also scan a QR code to reach the project website or complete a paper survey. During the event, 19 people scanned the QR code and 11 people completed a paper survey.

The map board received 224 responses of locations where participants would like to be able to ride the bus. The breakdown of locations is provided in the chart below.

Location	Number of Stickers
Wake Forest	68
Youngsville	12
Durham	25
RDU Airport	45
Research Triangle Park	16
Raleigh (including NC State)	45
Rolesville	10
Wendell	1
North and Northwest of Wake Forest	2

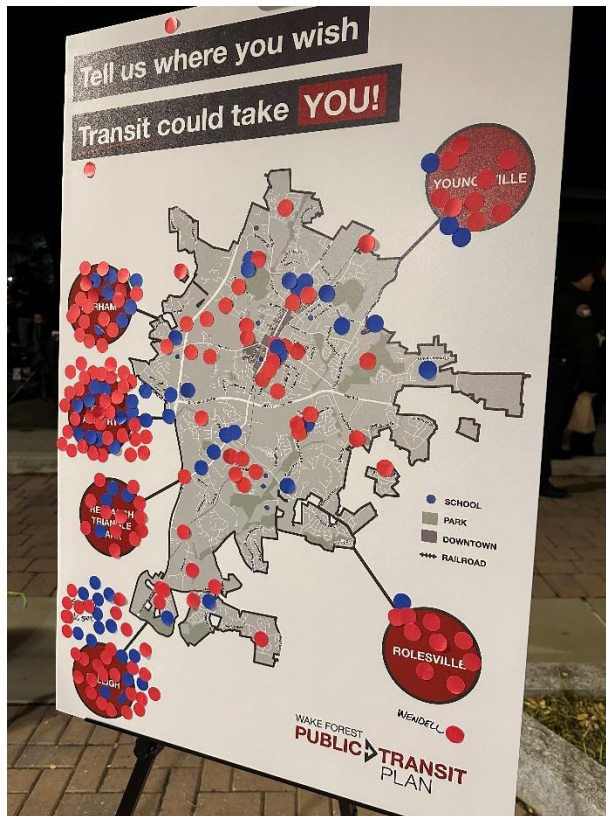
Additional locations were mentioned on the map board included:

- UNC Chapel Hill area (5 participants)
- Galaxy Fun Park
- Gateway Commons
- Wakefield
- Hobby Lobby in Raleigh
- Downtown Raleigh (2 participants)
- Downtown Durham
- Route to the airport with limited stops

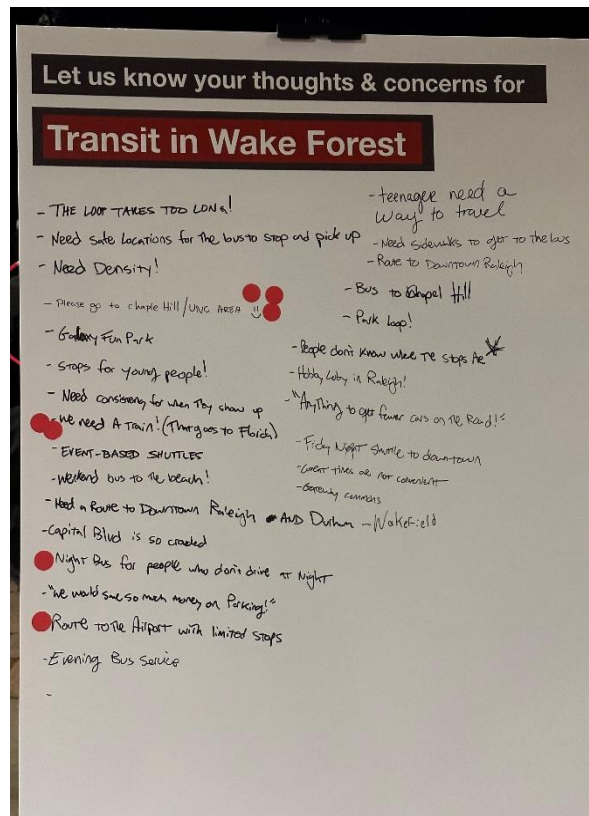
Additional comments from the comment board are provided below:

- The loop takes too long!
- Need safe locations for the bus to stop and pick up
- Need density!
- Stops for young people!
- Need consistency for when they show up
- We need a train! (That goes to Florida)
- Event-based shuttles
- Weekend bus to the beach!
- Capital Blvd is so crowded
- Night bus for people who don't drive at night (2 participants)
- We would save so much on parking!
- Evening bus service
- Teenagers need a way to travel
- Need sidewalks to get to the bus
- Park loop!
- People don't know where the stops are
- Anything to get fewer cars on the road!
- Friday night shuttle to downtown
- Current times are not convenient

MAP BOARD



COMMENT BOARD



Public Open House Overview

The Town of Wake Forest hosted two Public Open Houses on Thursday, February 2nd. The goal of these Open Houses was to provide residents and stakeholders with information on the Public Transit Plan. Residents were invited to share feedback on their preferred bus routes.

Meeting Format

Each open house meeting lasted 90 minutes. There were information stations and no formal presentation. Display boards offered project information at each station.

There was a total of seven board stations at each meeting. Four of the project boards were for adults and three were polling boards for children. The adult boards included:

- A System Map
- A Survey QR code
- A "Where Do You Want to Go" Map
- An Existing Conditions board

The children's boards included questions and prompts including:

- Board 1: Have you ever ridden the bus in Wake Forest? Did you know you can ride the bus for free?
- Board 2: If you could take a bus anywhere in Wake Forest, where would you go?
- Board 3: What do you think would make riding the bus fun? If you were in charge, what would taking the bus look like?

Children received a “passport” to collect stamps at each station they attended. A prize was given to all children who visited all three children’s polling boards.

Feedback

Feedback was collected using polling boards. A scavenger hunt activity was offered to children to get feedback on their transit needs. Three polling boards were offered to give youth a chance to offer feedback on their transit needs.

Comment and Response Summary

Participants offered a wide variety of feedback. The greatest number of comments were about connectivity. Participants wanted to see additional routes to green spaces and public parks, greater efficiency, and more park and ride lots. Several commenters highlighted the needs for seniors. These comments mentioned accessibility and safety, as well as specific locations for connections. Many participants were concerned about specific safety issues. These included a need for various crosswalks, sidewalks, and lighting. Many comments were shared about the need for more consistent bus shelters and bus shelters in specific locations.

Participants also offered several comments about strategies for communicating about transit services. A complete list of questions and comments (both adults’ and children’s’) can be found in Appendices A and B.

Survey Summary

Purpose of the Survey

Wake Forest released a community survey to learn more about the public transit preferences of residents. The feedback will be used to inform how the Town addresses public transit service needs. The community survey was made available to the public from December 1st, 2022, until February 19th, 2023. The survey was available in an online format and a paper form made available at the December 2022 popup event. The online survey was provided in English and Spanish. A total of 11 respondents filled out the paper survey.

The survey was advertised through multiple outlets. These included via Wake Forest email, social media, the project website, and a flyer at the popup meeting. The following summary includes the responses for both the paper and online survey.

There were 687 unique participants who answered at least one question on the survey. The majority of respondents took the survey online (98.4 percent), while 11 respondents filled out a paper copy. Most respondents learned about the survey through email (35 percent), social media

(35 percent), or through the mail (16 percent) and most reported living in Wake Forest (95 percent).

To learn more about who participated, the survey included several optional demographic questions. These questions had response rates ranging between 62 percent (income) and 85 percent (language proficiency). The percentages reported below are based on the number who provided responses, not the total number of survey participants. As such, summaries describe results for *question* respondents, not survey respondents.

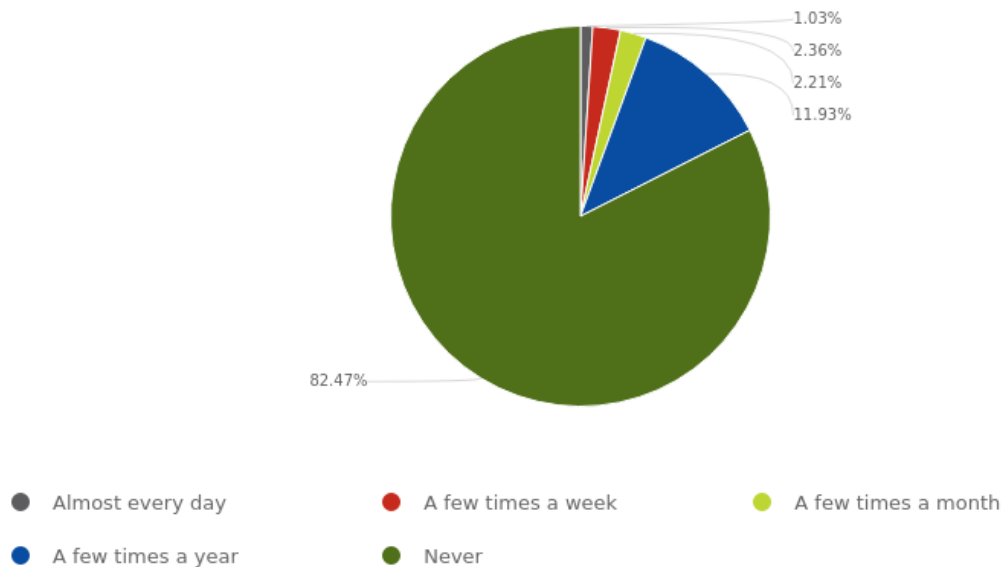
To explore the preferences among those who regularly ride the bus, survey results for respondents who take the bus at least a few times per month are also reported here. These survey participants are referred to as frequent riders.

The following summary includes responses for both the paper and the online survey.

Bus Usage Frequency

How often do you currently ride the bus?

Answered: 679 Skipped: 9



Choices	Response percent	Response count
Almost every day	1.03%	7
A few times a week	2.36%	16
A few times a month	2.21%	15
A few times a year	11.93%	81
Never	82.47%	560

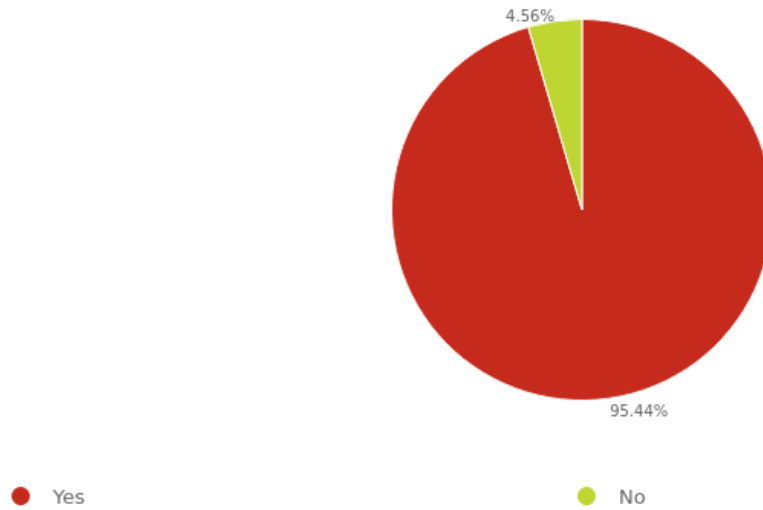
Of respondents, 82.4 percent indicated that they never ride the bus, 11.9 percent indicated that they ride a few times each year. Just over 5 percent indicated that they ride the bus with a minimum frequency of once per month, with 1 percent of these riding the bus almost every day. Survey responses for those who ride the bus at least a few times per month are also reported here. These survey participants are referred to as “frequent riders”. Information from frequent riders provides information on those who use the bus most frequently.

Frequent riders were more likely to be women (66 percent), more likely to be individuals with a disability (26 percent), and likely to report an annual household income of less than \$47,000 per year.

Personal Vehicle Access

Do you have access to a reliable personal vehicle?

Answered: 680 Skipped: 8



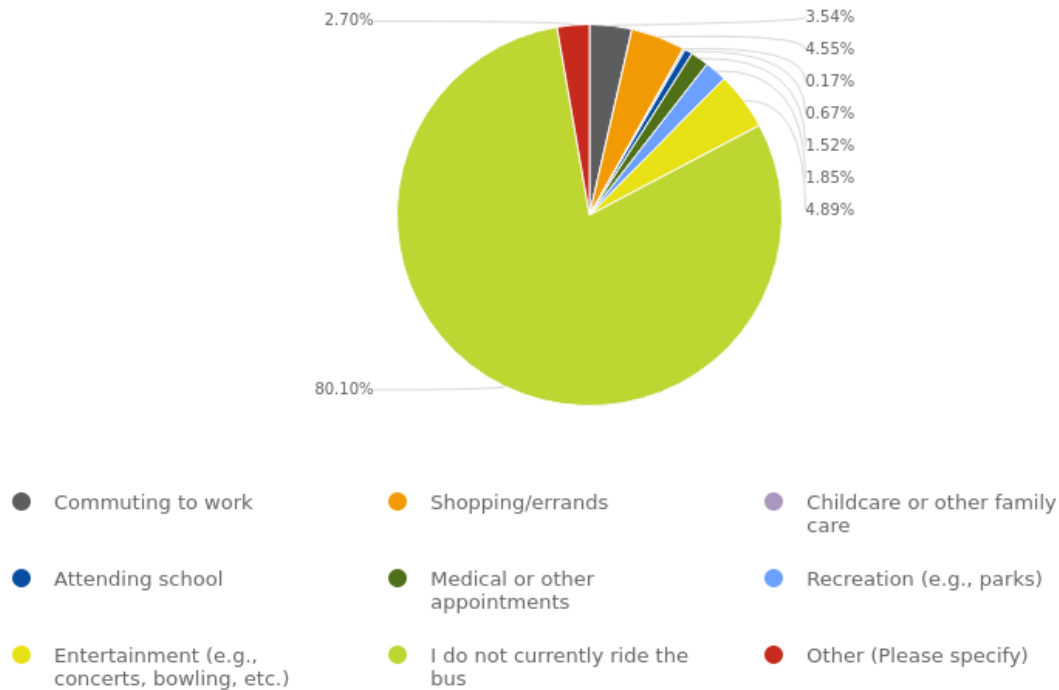
Choices	Response percent	Response count
Yes	95.44%	649
No	4.56%	31

The majority of riders have access to a personal vehicle, with over 95 percent indicating ownership of a reliable vehicle. Frequent riders were less likely to have access to a reliable vehicle (61%).

Primary Reason for Travel

If you currently ride the bus, what is the primary reason for your travel?

Answered: 593 Skipped: 95

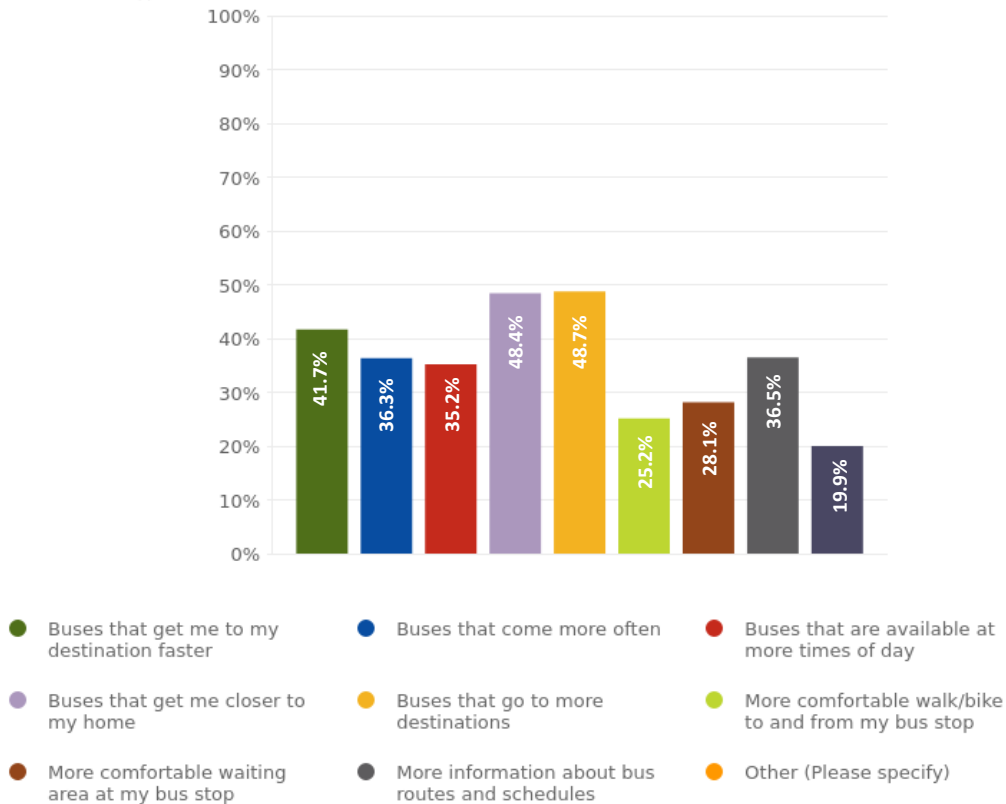


Of those who ride the bus, the top three reasons for travel include entertainment, shopping, and commuting to work. Nearly 5 percent indicated using it for entertainment, followed by 4.5 percent indicating primarily using it for shopping, and 3.5 percent using the bus to travel to or from work. Frequent riders were more likely to rely on public transit to get to work (40%), run errands (40%), and attend school (8%) than the sample at large.

Factors to Increase Motivation for using the Bus

What would encourage you to start riding the bus or ride the bus more often?
(Check all that apply)

Answered: 636 Skipped: 52



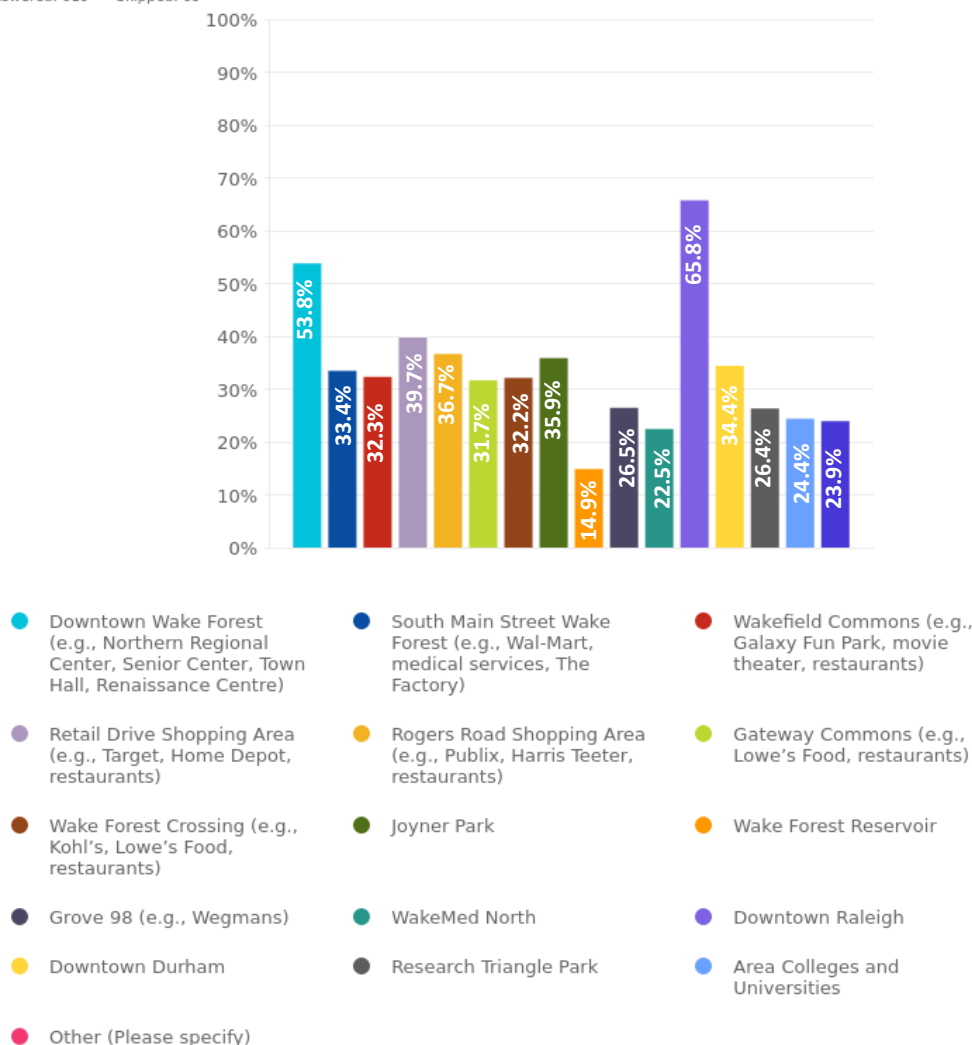
When asked what could entice them to ride the bus at all or ride the bus more often than they currently do, the most important factors relate to connectivity. Specifically, respondents said that they would like buses to get them closer to their homes (48%) and go to more destinations (49%). Other respondents were concerned with service, wanting buses that get them to their destinations faster (42%), that come more often (37%), and that are available at more times of the day (36%). Thirty-seven percent (37%) would consider taking the bus or taking it more often if they had more information about bus routes and bus schedules. Many other reasons were given for not riding the bus more often, with most of them indicating that there is no incentive that would encourage them to ride the bus.

Bus service and safety were higher priorities for frequent riders. At least half of these riders wanted buses to be available more times of the day (58%), buses that run more often (50%), and safer bus stops (50%).

Preferred Bus Destinations

Which destinations would you like to reach using the bus (check all that apply)?

Answered: 619 Skipped: 69



Respondents listed preferences for many different bus destinations, with the top destinations chosen being Downtown Raleigh (65.8 percent) and Downtown Wake Forest with 53.8 percent. Approximately one-third of respondents said that they would like to be able to reach South Main Street Wake Forest (34%), Wakefield Commons (33%), the Rogers Road Shopping Area (37%), Gateway Commons (32%), Wake Forest Crossing (32%), Joyner Park (36%), and Downtown Durham (34%) via bus. The most common destination offered as a suggestion by respondents was Raleigh-Durham Airport (RDU).

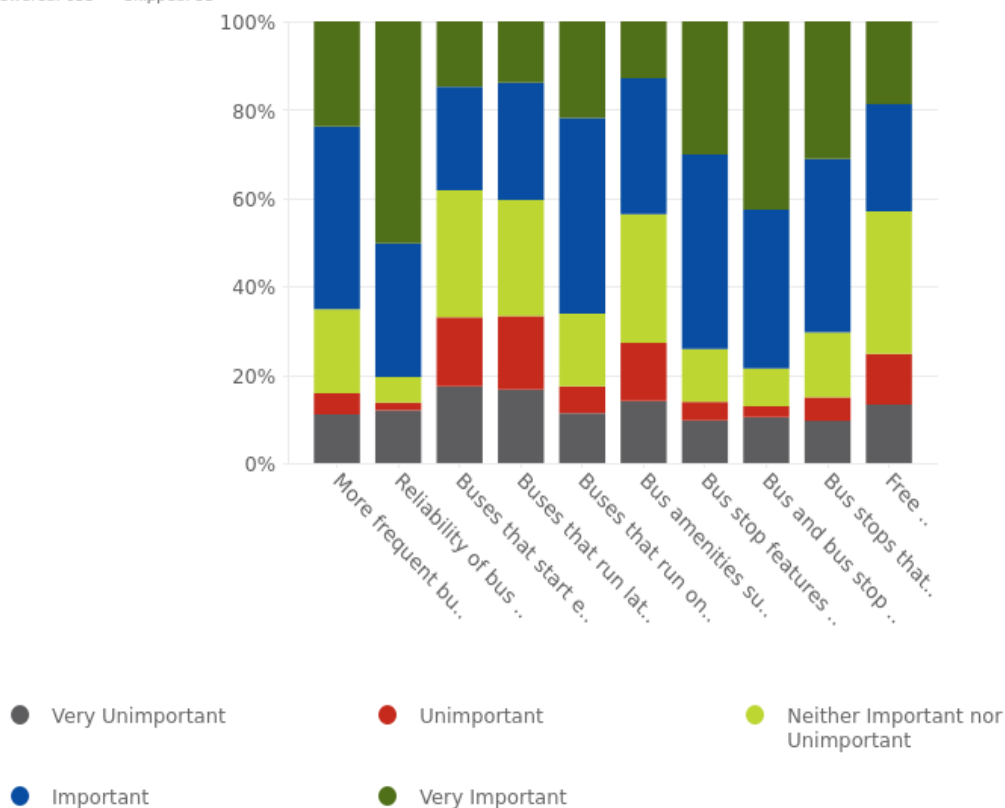
Neighborhood Bus Access

The survey asked respondents to indicate which neighborhoods they would like to see the Wake Forest bus travel to. The most frequently named communities were: Heritage/Heritage South (n=24), Traditions (n=17), Old Mill Stream (n=10), Holding Village (n=9), and Northampton (n=8).

Prioritization of Services and Amenities

How important to you are the following types of services and amenities?

Answered: 653 Skipped: 35



When asked to rank the importance of bus services and amenities, most respondents prioritized reliable bus schedules (81 percent), bus and bus stop safety (79 percent), and bus stops that connect to pedestrian and bike facilities (71 percent). Less important to respondents were amenities like free bus fare (25 percent), charging stations and Wi-Fi (27 percent), buses that run until midnight (34 percent), buses that run before 7 AM (33 percent).

Bus schedule reliability (90%) and safety on the bus and while waiting for the bus (86%) were also priorities among frequent riders. However, they were more likely to rate bus stop features like benches and shelters as important (89%) than the sample at large (74%).

Survey Demographics

Gender Identification of Respondents

A slight majority of question respondents identified as women (58 percent), while 37 percent identified as men and less than 1 percent as non-binary. Five percent (5 percent) indicated that they preferred to self-identify.

Age of Respondents

The largest proportion of respondents (63 percent) report being between 35 and 64 years old. Twenty percent (20 percent) are aged 65 or older and fourteen percent (14 percent) are younger than 35. Those under 24 years old (3 percent) and those 75 or older (5 percent) are the least represented in the survey.

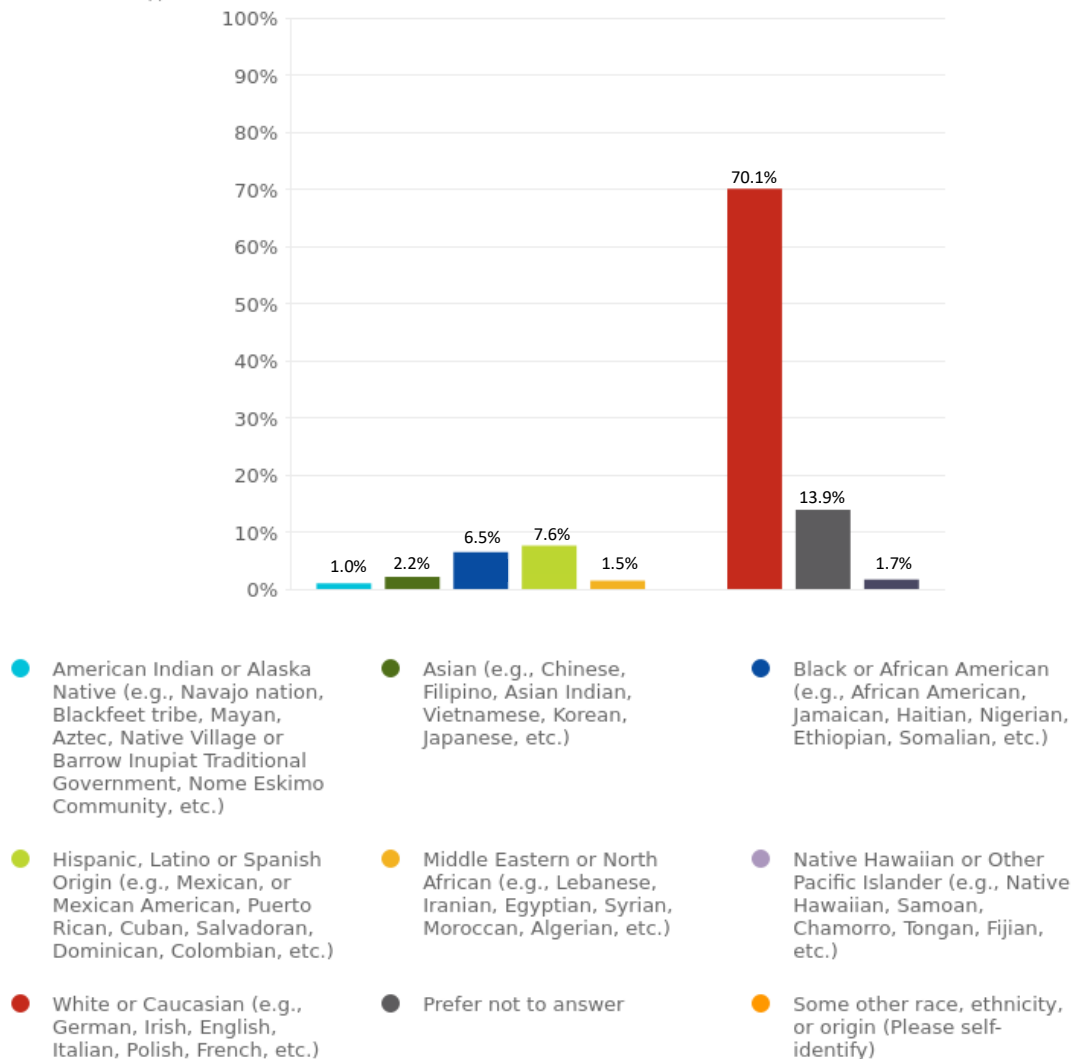
People with Disabilities

Asked if they had a disability, 10.2 percent indicated that they had a disability, 6.1 percent indicated that they did not wish to answer the question, and 83.7 percent indicated that they did not have a disability.

Racial Demographics

Which category best describes you? Select all that apply.

Answered: 605 Skipped: 83



To measure the racial composition of participants, the survey included a question prompting individuals to define themselves racially and ethnically using as many categories as desired. The

two most common identities among respondents who provided a response were white or Caucasian (70 percent), Hispanic or Latino (8 percent), and Black or African American (7 percent). Fewer respondents identified as Asian or Pacific Islander (2 percent), Middle Eastern or North African (2 percent), Native American or Alaskan Native (1 percent), or some other identity category (2 percent). Zero respondents (0 percent) identified as Native Hawaiian or Other Pacific Islander. Fourteen percent (14 percent) opted out of providing their racial identity.

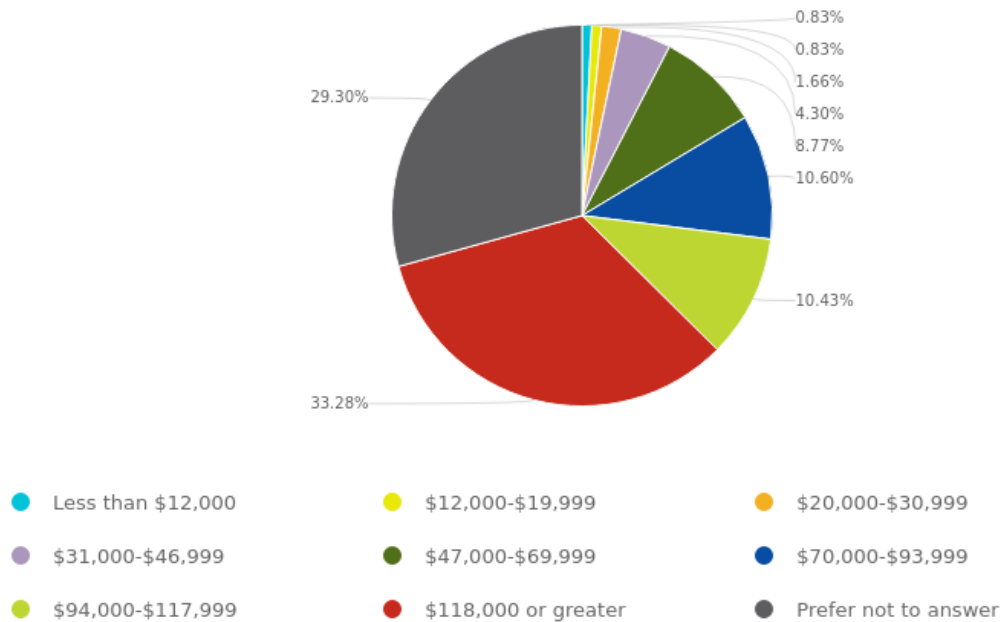
Nearly all question respondents indicated that they speak English very well (92 percent) or well (4 percent). Few respondents said that they speak English 'okay' (.5 percent), very little (.2 percent), or not at all (.2 percent).

The survey also inquired as to which language respondents speak at home most of the time. The vast majority primarily speak English (n=416). Others speak Spanish (n=8), Portuguese (n=2), Arabic (n=2), Cantonese (n=1), Chinese (n=1), Russian (n=1), Italian (n=1), Hindi (n=1), Japanese (n=1), Yiddish (n=1), Yoruba (n=1), and Slovak (n=1).

Household Income of Survey Participants

What is your approximate annual household income?

Answered: 604 Skipped: 84



Choices	Response percent	Response count
Less than \$12,000	0.83%	5
\$12,000-\$19,999	0.83%	5
\$20,000-\$30,999	1.66%	10
\$31,000-\$46,999	4.30%	26
\$47,000-\$69,999	8.77%	53
\$70,000-\$93,999	10.60%	64
\$94,000-\$117,999	10.43%	63
\$118,000 or greater	33.28%	201
Prefer not to answer	29.30%	177

When asked for their approximate annual household income, 33.3 percent indicated a household income of \$118,000 or greater and 29.3 percent indicated that they did not wish to answer the

question. Just higher than 20 percent of additional respondents indicated a household income between \$70,000 and \$117,999 per year. The remaining 7.6 percent indicated a household income of less than \$70,000 per year.

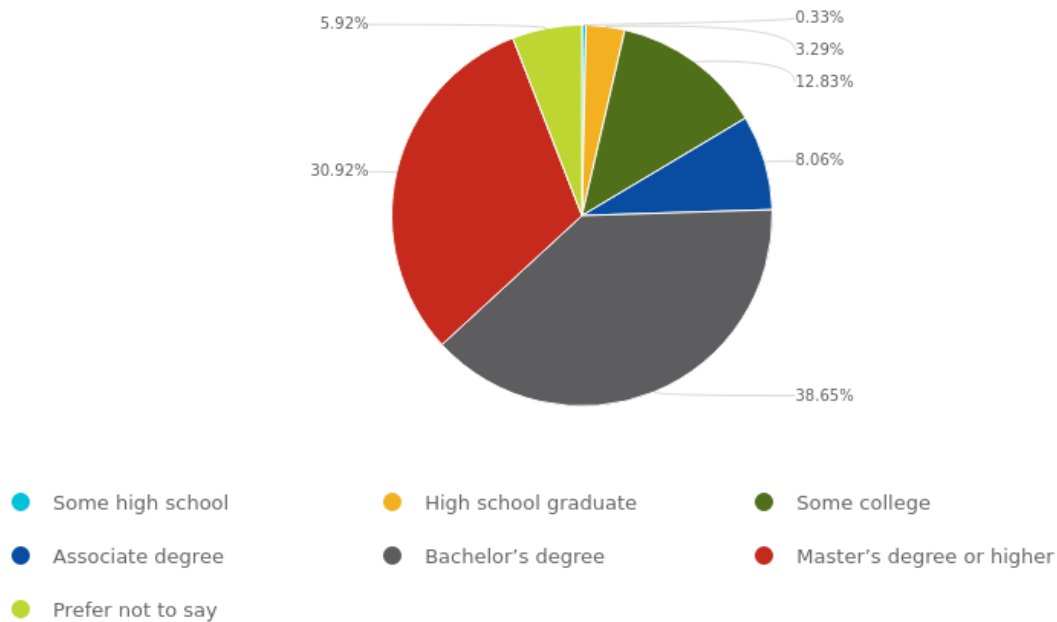
Homeownership Among Respondents

While most survey participants own their homes (85.2 percent), 6.8 percent rent their homes, and 8.1 percent preferred not to answer the question.

Educational Attainment of Respondents

Select your highest level of education attainment:

Answered: 608 Skipped: 80



Choices	Response percent	Response count
Some high school	0.33%	2
High school graduate	3.29%	20
Some college	12.83%	78
Associate degree	8.06%	49
Bachelor's degree	38.65%	235
Master's degree or higher	30.92%	188
Prefer not to say	5.92%	36

Most participants (90.5 percent) have attained at least some college education. Other participants indicated being a high school graduate (3.3 percent), having some high school education (.33 percent), or preferring not to say (5.9 percent).

Recommendations for Future Outreach

Efforts were made during this outreach to engage as many residents as possible. To continue to engage effectively and to increase future participation, additional efforts will need to be made.

The highest percentage of LEP individuals (2.3 percent) in this area speak Spanish. Outreach to Spanish-speaking populations was ineffective. Less than 1 percent of respondents indicated speaking “very little” or “no” English. To ensure that LEP populations are proportionately represented and included in future engagement, all public-facing materials should continue to be shared in English and Spanish at an 8th grade reading level standard or lower. Efforts should also be taken to distribute surveys via Spanish-language media channels.

Phase 1 engagement was effective in reaching a representative sample for most demographic categories, however, disproportionately fewer African Americans conducted the survey than other groups. The population of this group makes up 16.3 percent of area residents, but only made up 6.5 percent of survey respondents. Future outreach should increase targeted engagement through minority media outlets and community partners who work with these populations.

Phase 1 engagement was more effective in reaching riders and potential future riders with a household income of higher than \$47,000 per year. To ensure representative feedback, future outreach should consider ways to reach individuals more effectively with a household income of lower than \$47,000 per year.

Phase 1 engagement was most effective in reaching those ages 35 and older. Future engagement should consider ways of engaging residents younger than age 35. Those under 24 years old (3 percent) and those 75 or older (5 percent) are the least represented in the survey. Upcoming engagement should particularly focus on reaching those under than 24 years old and older than 75.

Appendix A - Open House Thoughts and Concerns (Mid-Day & Evening Sessions)

Communication Strategy Recommendations

- Facebook/social media campaigns to let people know bus in WF is free + links to route maps etc.
- Advertise bus info via homeowner's associations to inform the community. Let everyone know it's free!
- Social media – Let people know more about para transit services & how to access
- Sell advertising spaces on buses & use funds for sidewalk improvements + greenway improvements
- The WF loop is very good in general. Crossing high volume roads can be an issue. Maybe try to target surveying people in Sr. complexes, apts., and working service type jobs

Connectivity, Access, and Transit Time

- Connectivity to green ways
- Transit to Walnut Creek Amphitheatre for Concerts
- Transit to Durham/RTP for work hours
- Commuter rail. More efficient bus service
- I'd like to take a bus to north Hills, the State Fair, and RBC
- In Wake Forest the Hwy 98 by-pass should have bus access between the current bus route
- Maybe have the loop bus stop closer to Walmart front door
- Light rail services Wake Forest to Cary/Durham/Raleigh
- Move the stop at Chick-fil-a to in front of Goodberries
- Park + ride lots. Move bus stops. Keep seniors in mind i.e., distance between stops
- More Park n ride lots
- We need some buses – 2 or 3 – to travel to Raleigh in the middle of the day so we don't have to spend the whole day in Raleigh
- Lightrail to Raleigh. Trolly service
- The bus location near Wake Med needs periodic stops
- Travel 98 Calvin Jones Hwy
- Bus line down Calvin Jones (98) to connect multifamily developments.
- Buses to churches on Durham Road
- More transportation near Crabtree on Glenwood at CarMax in Raleigh
- Joyner Park
- Joyner Park bus service needed
- Would like a bus to go to Joyner Park – Right now people who do not have a car have no access to this beautiful park and community center
- Hwy 98 & Cap Blvd pedestrian crossing to NW College + Career Academy (under Hwy 1)
- It would be wonderful to have a bus go to TTC – maybe around noon!! Lots of us “oldsters” would like to go there but not at 7:30 AM
- Would like to see a bus go to *Stadium Dr to the Smith Field, Ross and Marshall's (Capital Outlet)
- Need a bus Rogers Rd & S. Franklin St.

- Would like for a bus to come to the neighborhood on South Franklin St.
- Bus Hailing in downtown area
- Connectivity to multi-modal transit center – bus/express bus/commuter rail/ride share
- More efficient roadways to accommodate the population growth – we are turning into “Cary”
- Make developers improve roads before they build new housing
- Wake Forest buses need to start running earlier for many service industry workers to take advantage of
- The arrival times of WRX buses are too close to the top of the hour to allow many workers to get to work on time. Offsetting routes even 15-20 min earlier could fix that
- Bus or train to RDU
- Bi-hourly bus on Friday and Saturday evenings between Wake Forest + downtown Raleigh ex. 6pm-12am
- Light Rail to/from W.F. + downtown Raleigh + RDU
- Idea if having WF loop get H.S. Students to H.S. (including charter schools) if they live in neighborhoods by route
- Later operation during Friday Nights on White
- Walmart
- The intersection of Wake Forest with Raleigh buses needs to have more connecting/better transfers to make bus transit viable for daily commute to workers not in downtown
- Neighborhood Routes
- I would love a larger range + timetable for buses so it can be an alternative to driving. Currently, the time + range of bus travel doesn't make it a good alternative for many
- Run WRX on Saturdays for people to go to a mall or downtown
- Similar to GoAccess -> micro transit or on call free transport to specific locations. Riders could apply and meet max income standard. Essentially expand GoAccess idea past just work and doc appointments to support groups, community events, etc.
- Tyler Run, Holding Ridge, South Main Street
- Triangle Mall
- Relocate the park &ride lot or place a stop next to it
- More routes and effective bus services to GoRaleigh and Durham
- More connections to everywhere

Safety and Accessibility

- Need a sidewalk on Huntington Spring Senior Bldg., S. Franklin St 1887
- Sidewalks everywhere hbd***
- Complete sidewalks on Rogers x Main & Heritage Lake
- Keep seniors in mind – will need more buses
- Crosswalk signals around the Seminary
- Stops at parks and schools
- Sidewalk on Durham Road
- Covered sheltered bus stops (check about Eagle Scout projects)
- Include pedestrian crossings in new development
- Include bus cut ins in new development
- Include concrete parking pads or busways – Bus tear up asphalt
- Sidewalks on NE side of town

- Sidewalks. If you can't walk safely to a bus stop, why use it?
- Ped. bridge over Capital
- Friday Night on White shuttle to neighborhoods to avoid drunk driving

Amenities

- Increase the number of bus shelters
- Add a save space to be dropped off on Retail Drive and 98 Hwy. No platform/shelter
- Bus Shelters. Reliability
- More bus shelters placed near already existing outdoor lighting
- Bike rack at select bus stops on main arterials
- App for bus schedule real time
- Lighting especially in historically African American neighborhoods
- Please use the QR code card for transit fee, much more efficient
- Make sure bus stops cover both sides of major roads/intersections so people aren't discouraged by dangerous crossings
- Solar powered lights in bus shelters

Questions

- Do you think people will give up their cars and take public transit?
- Is this the most cost-effective way to provide transportation to a small group of people?
- Smaller buses for WF loop until enough passengers to warrant current large size buses

Miscellaneous

- So excited about the light rail. Will be so good for economic situation of many WF + other towns residents
- More frequent stops! More buses = more riders!
- I never knew which bus goes which way – They both have "A." I always ask the driver – 1 goes clockwise + 1 goes counterclockwise
- Maintain and build more roads to keep up with large increase in building. Do not be another Northern Va.
- It is good for people to get where they need to go without worrying about car payment and insurance that they can't afford. This is sooo needed!
- All around Heritage
- Have transit oriented zoned areas be developed by developers who target actual bus riders
- Joyner Park
- Transit is doing a good job at their job
- More bus stops
- Just get out of the house
- Music
- Ride the bus to school
- Color
- Going to School
- Fun
- Sing, friends, blue

Appendix B - Children's Responses "If you could take a bus anywhere in Wake Forest, where would you want to go"?

- Galaxy Fun Park
- Sprayground
- Wendy
- McDonalds
- Disneyland
- Raleigh
- Target
- Downtown
- Dominos
- Poughkeepsie
- School
- Raleigh
- Dog Park
- Walmart
- Joyner Park and nearby commercial area
- Jurassic Park
- Joyner Park
- Food Lion
- Health + human services/Library
- Pizzeria



Wake Forest Public Transit Plan

Rider Survey Summary Report

Prepared for the Town of Wake Forest

by Public Participation Partners

In Coordination with Toole Design

April 2023

Purpose of the Survey

This survey differed from the Online Community Survey distributed during Phase 1 of the engagement process. While the Online Community Survey engaged the broader community, the rider survey was designed primarily for riders who already use the fixed route system or the demand-response system in the Town of Wake Forest. The purpose of the Wake Forest Transit Plan Rider Survey was to better understand how existing riders use transit services and how services can be improved.

Survey Administration

The survey went live via the Zoho Survey engagement platform on March 12, 2023 and was open for survey respondents through April 6, 2023. Links to the survey were distributed via a QR code on signs at bus stops, on flyers, and on business cards.

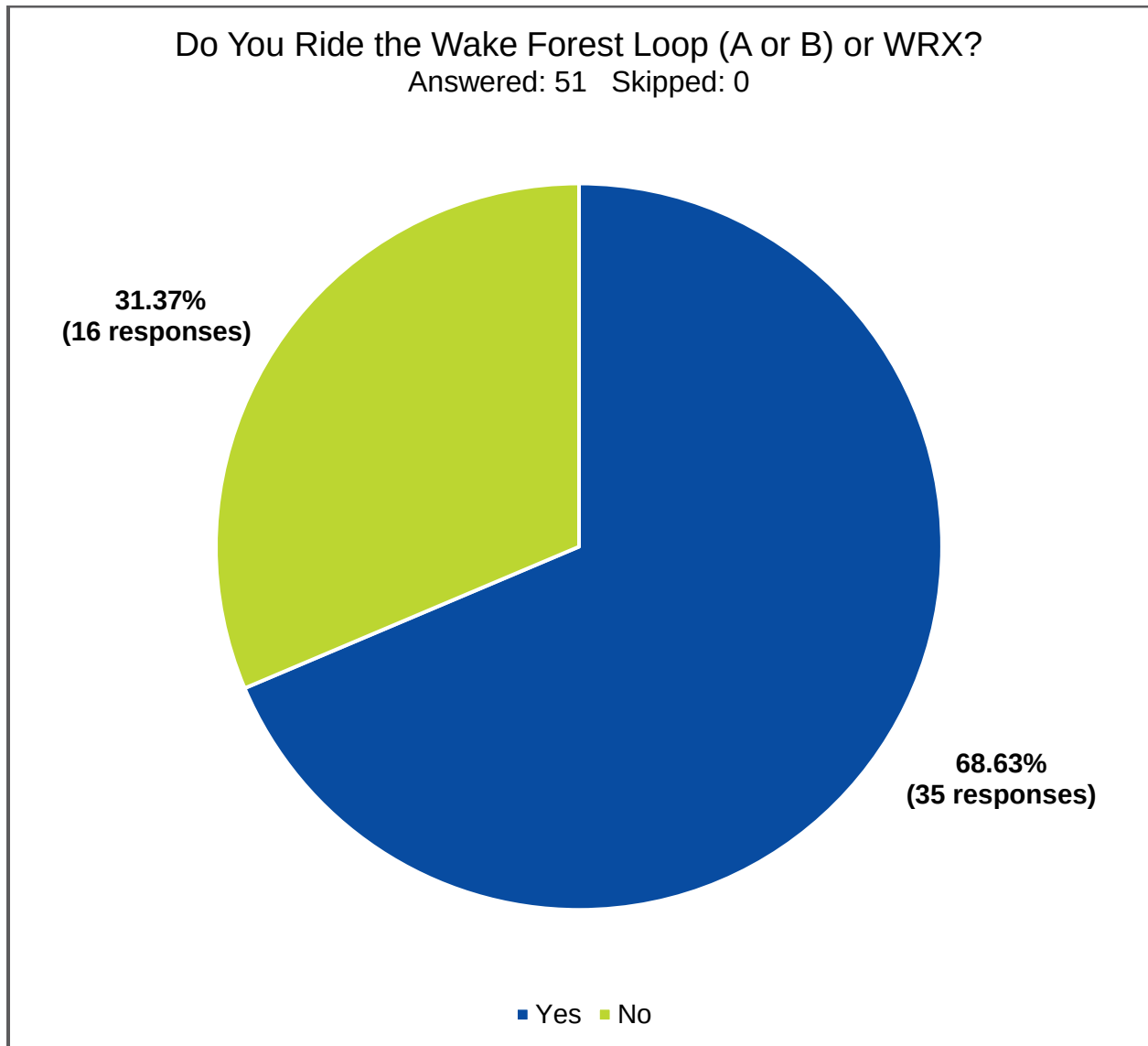
Survey Participants

There were 51 unique participants who answered at least one question on the survey. The survey included a set of voluntary demographic questions, which had response rates ranging between 38 percent (language spoken at home) and 54 percent (age and language proficiency). The percentages reported below are based on the number who provided demographic information, not the total number of survey participants. As such, summaries describe results for **question** respondents, not survey respondents.

General Survey Results

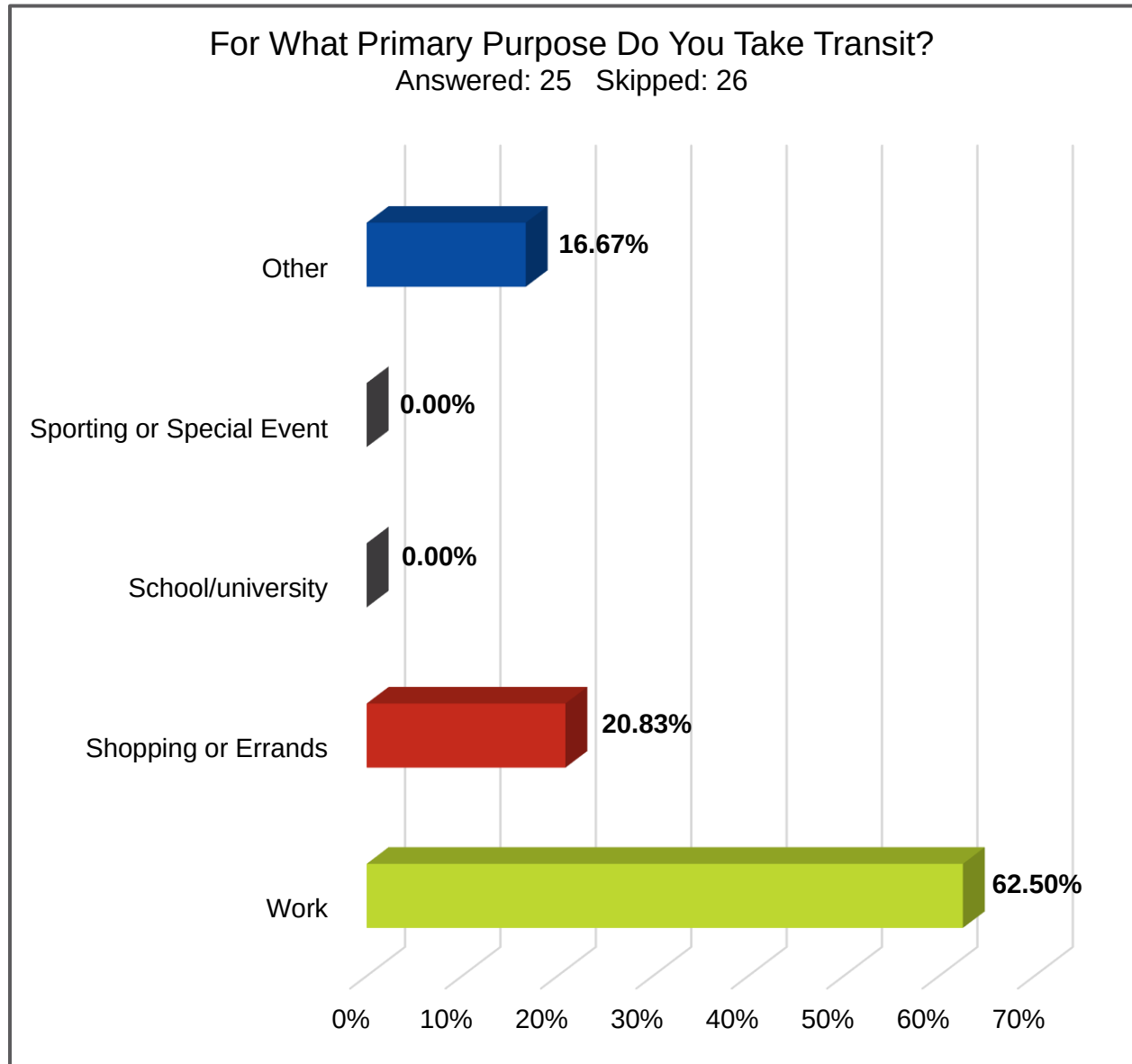
The rider survey was developed to better understand how existing riders use services and how services might be improved. Nine questions were asked to help inform how the Town addresses public transit needs.

Wake Forest Transit Use



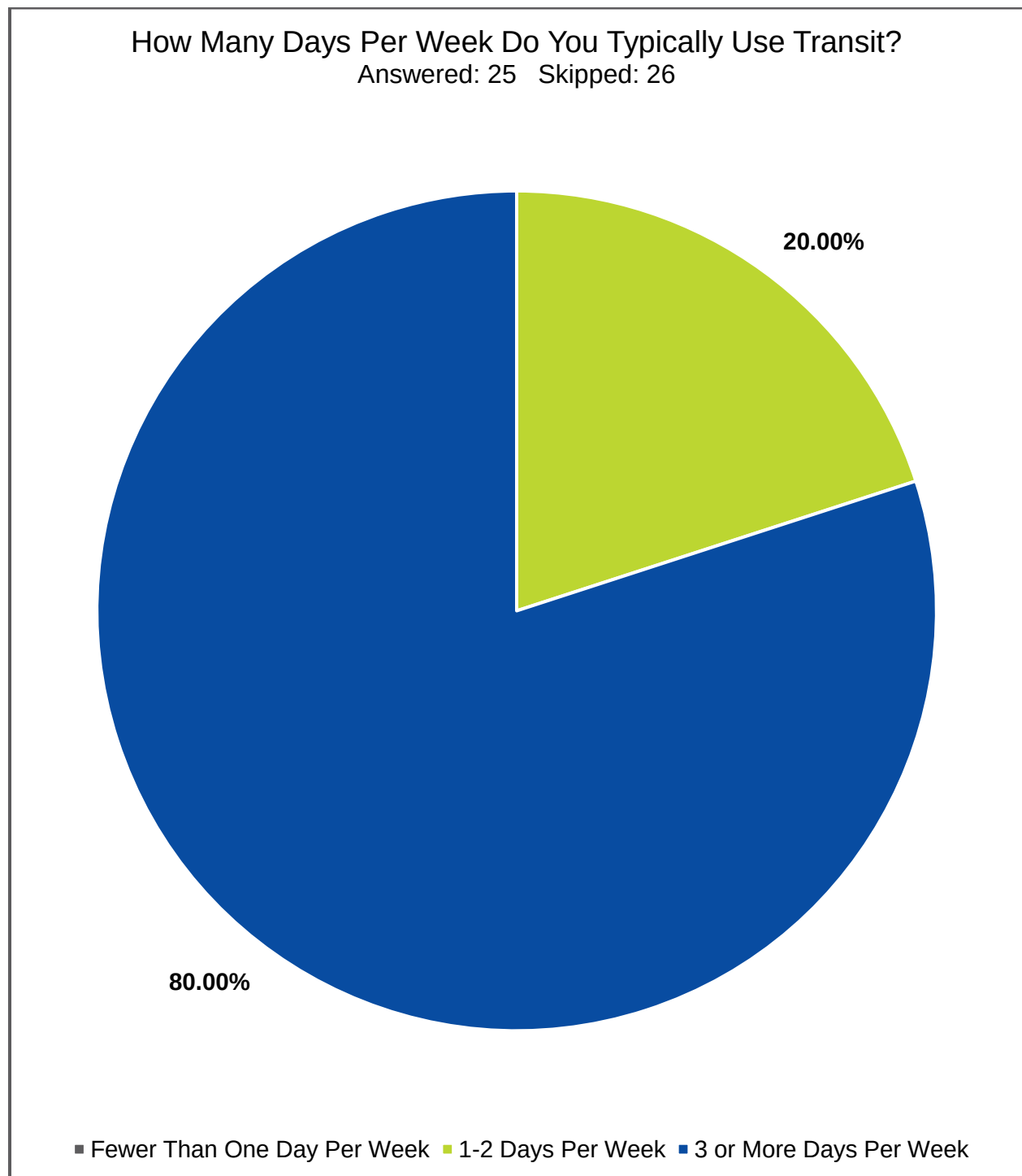
Nearly 69%, (68.6%) of survey respondents ride the Wake Forest A Loop, B Loop, or the WRX, while 31.4% say that they do not ride any of those routes.

Public Transit Destinations



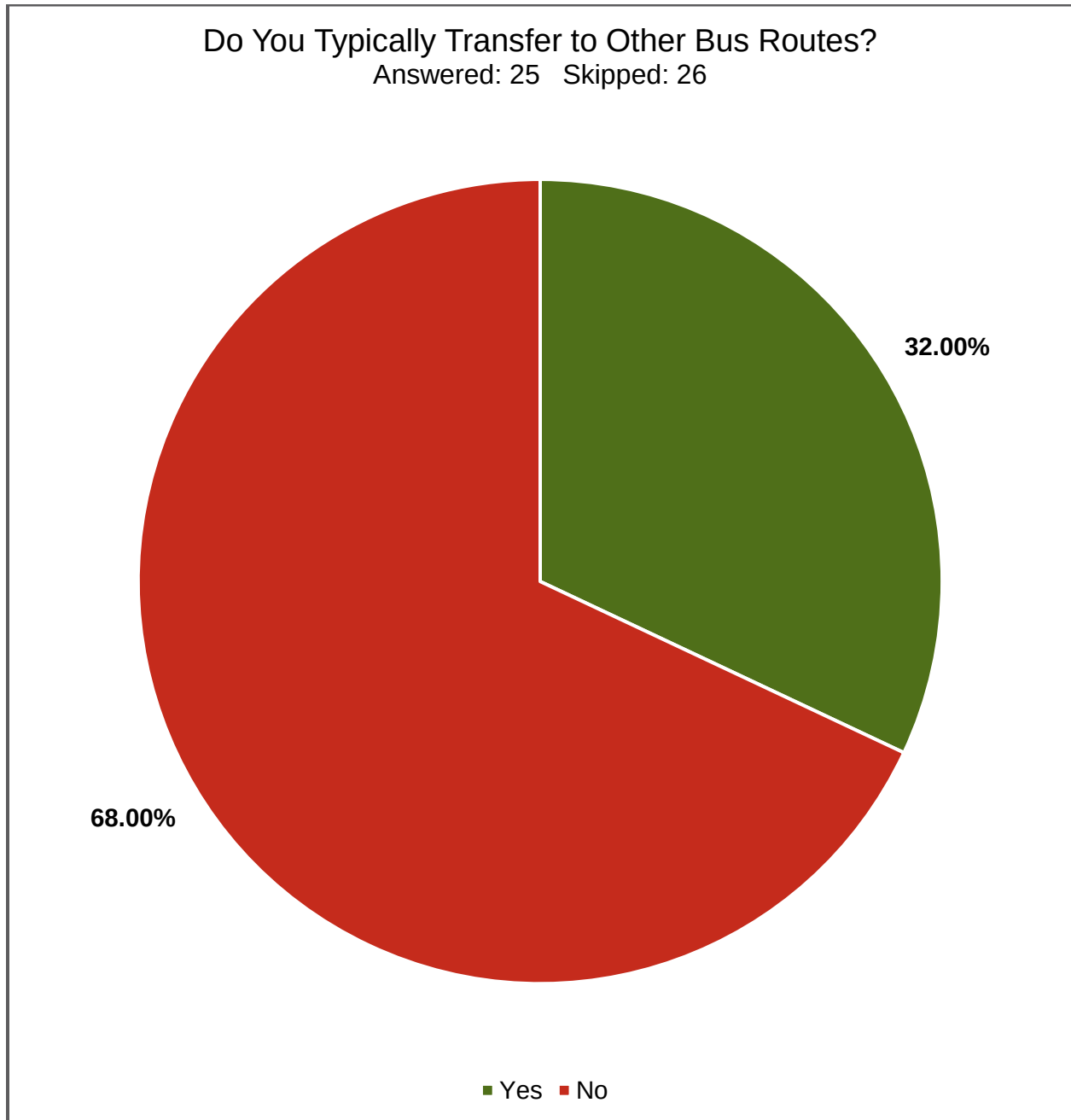
The majority of respondents, 62.5%, use public transit to get to work, while 20.8% use it to go shopping or run other errands. None of the respondents indicated that transit was used for going to school or special events. Other reasons for riding the bus included getting to the gym and just riding around at 16.7%.

Public Transit Frequency



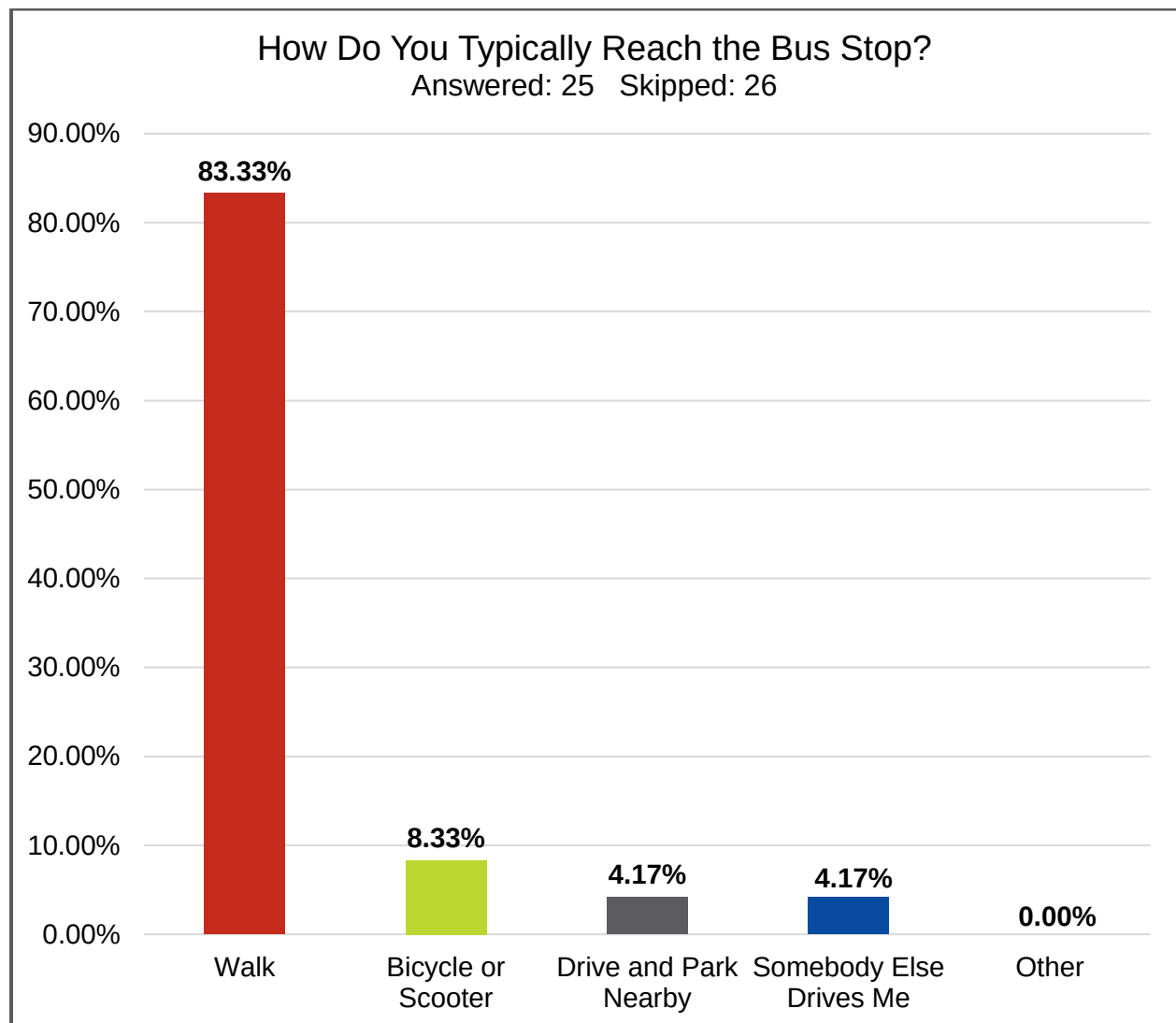
Eighty percent (80%) of respondents who use public transit do so at least three days per week, while 20% ride one or two days per week. There were no respondents that indicated they use public transit less than one day per week.

Transit Transfers



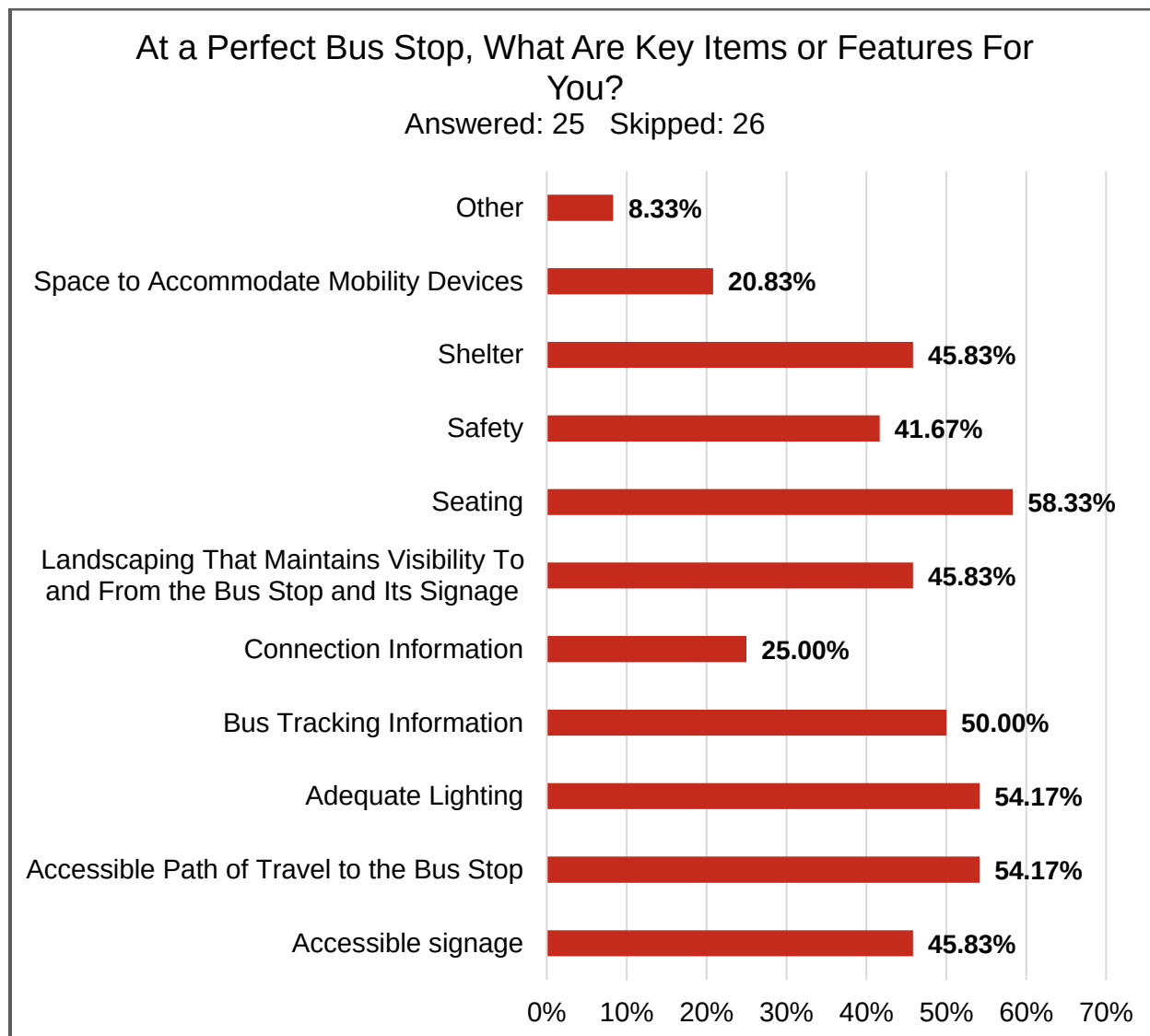
Sixty-eight percent (68%) of respondents indicated that they do not transfer to routes other than their own. Thirty-two percent of respondents indicated that they do transfer routes. Of the 32%, four respondents indicated that they transfer in order to ride a combination of the Wake Forest A Loop, B Loop, and WRX. Four respondents transfer to other bus routes, including the 300 and the 25L.

Trip to Bus Stop



Most respondents, 83.3% indicated that they walk to their bus stop. Fewer respondents indicated they use a bicycle or scooter at 8.3%, 4.2% drive and park nearby, or get dropped off by another driver.

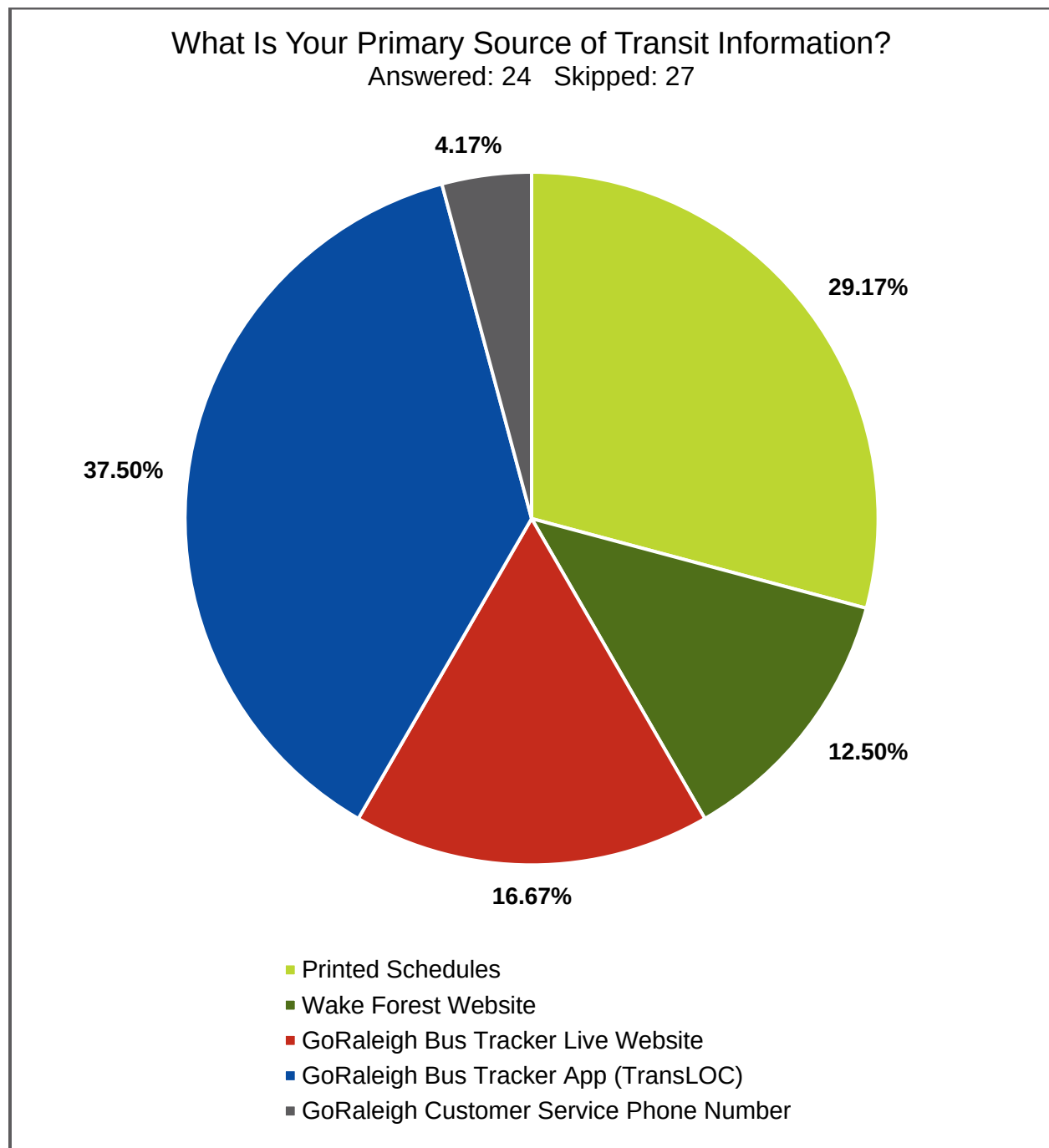
Preferred Bus Stop Amenities



Respondents were asked what key features their ideal bus stop would have. Twenty-five percent (25%) or less respondents preferred amenities such as connection information, accommodation for mobility devices and others. The most notably desired amenities are listed below.

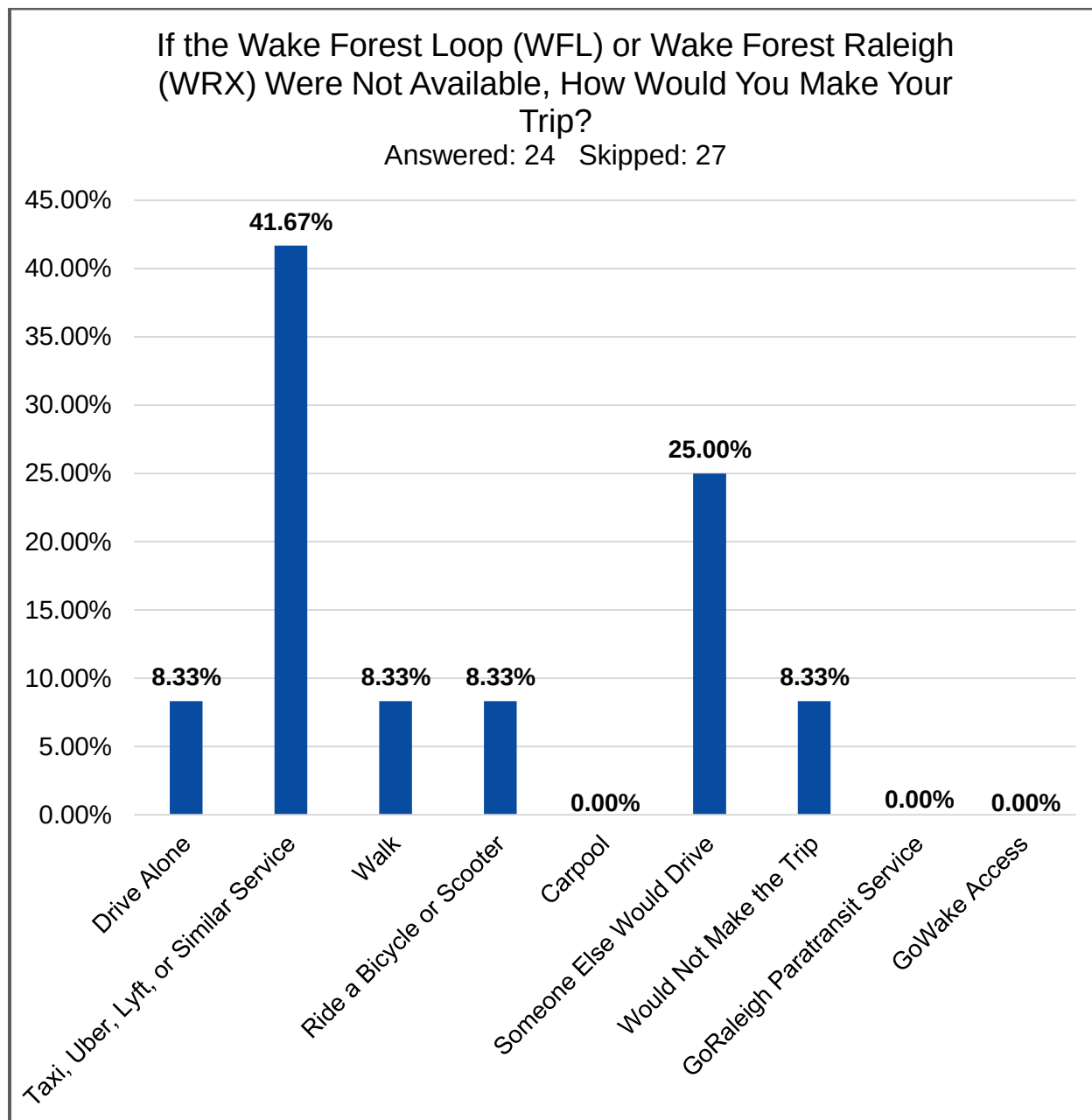
- 58.3% indicated seating
- 54.2% indicated accessible paths to the bus stop and adequate lights
- 50% indicated information to track buses
- 45.8% indicated accessible signage, bus stop shelters, and landscaping maintenance
- 41.7% indicated safety

Transit Information Sources



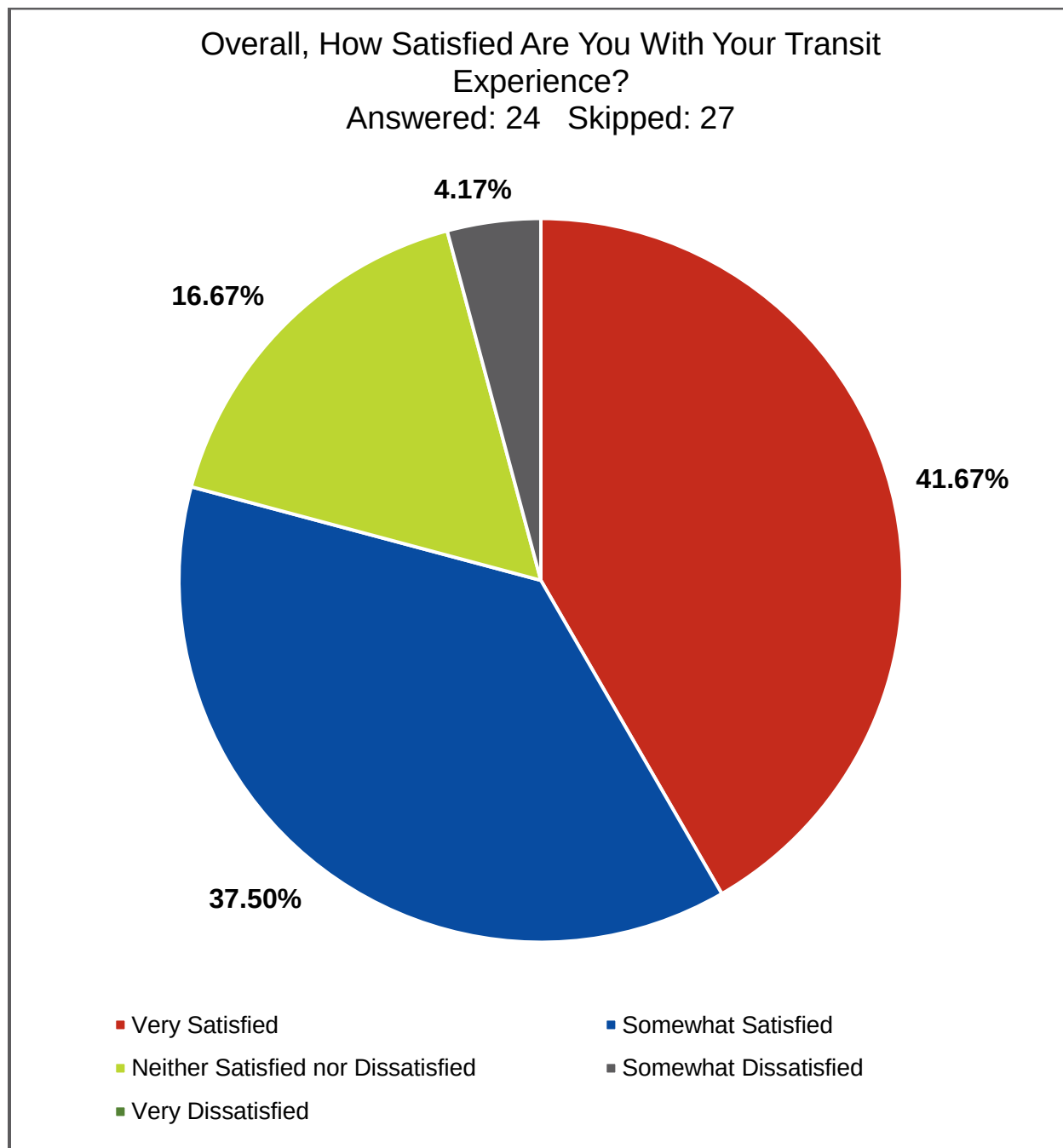
Respondents indicated that The GoRaleigh Bus Tracker App, 37.5%, and printed schedules, 29.2% were the most cited sources of transit information. Respondents were less likely to use the GoRaleigh Bus Tracker Live website, 16.7% or the Wake Forest website, 12.5%. Four percent (4%) of respondents use The GoRaleigh customer service phone line.

Transit Alternatives



When asked how they would get to their destinations if the Wake Forest Loop or Wake Forest-Raleigh (WRX) were not available, 41.7% of respondents indicated that they would most likely take a taxi or use a rideshare service. Twenty-five percent (25%) indicated that someone else would drop them off at their destination. Others indicated that they would drive, walk, or take a bike/scooter, 8.3%. Two respondents stated they would not make the trip if Wake Forest public transit were unavailable. Zero respondents would carpool, use paratransit, or take GoWake Access.

Satisfaction with Transit Experience

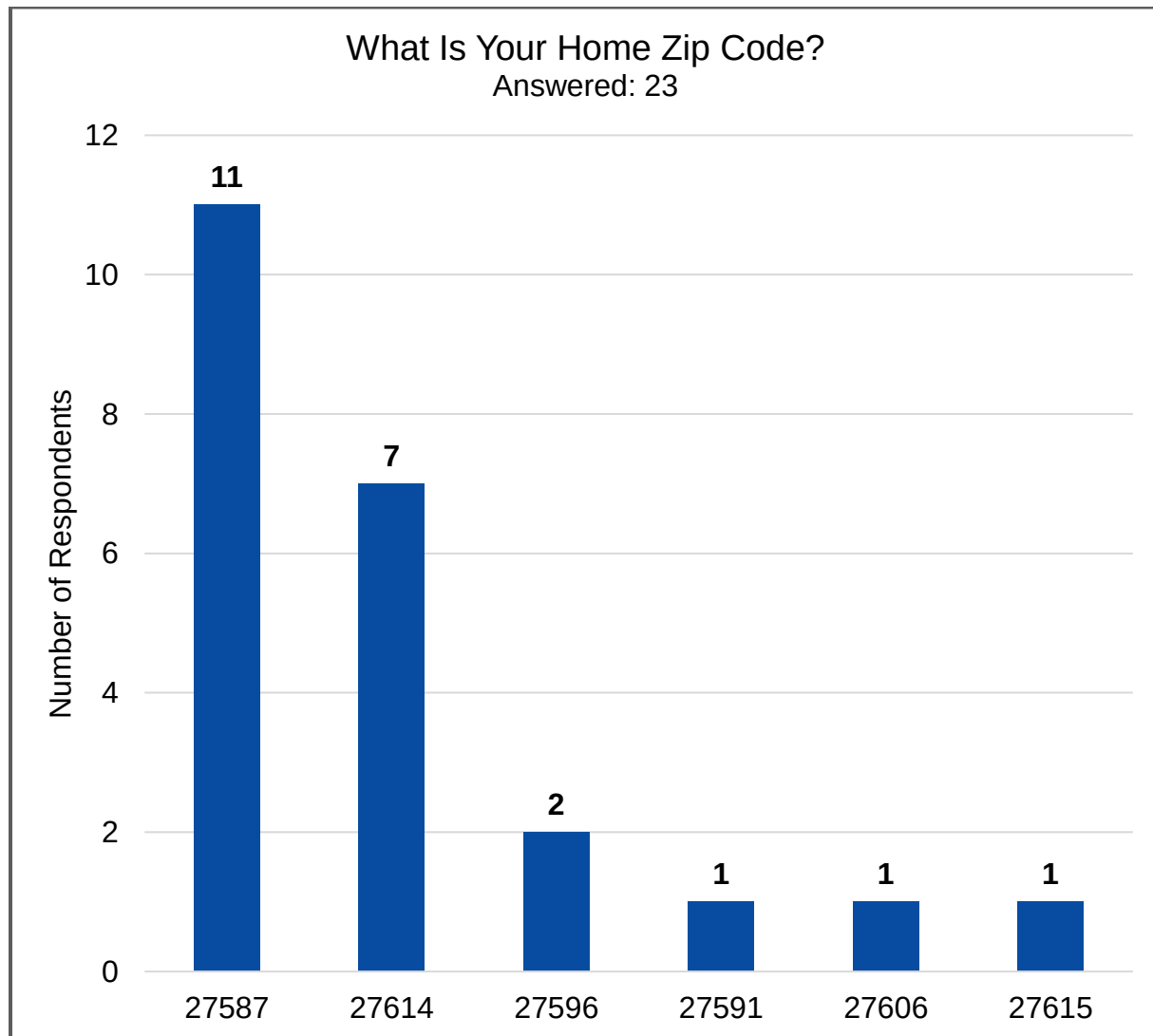


Most respondents, 41.7% are very satisfied with their transit experience, with 37.5% being somewhat satisfied. Nearly 16.7% of respondents said that they were neither satisfied nor dissatisfied. Approximately 4.2% of respondents stated they are somewhat dissatisfied with their transit experience. Notably, zero respondents expressed being very dissatisfied.

Voluntary Demographic Question Analysis

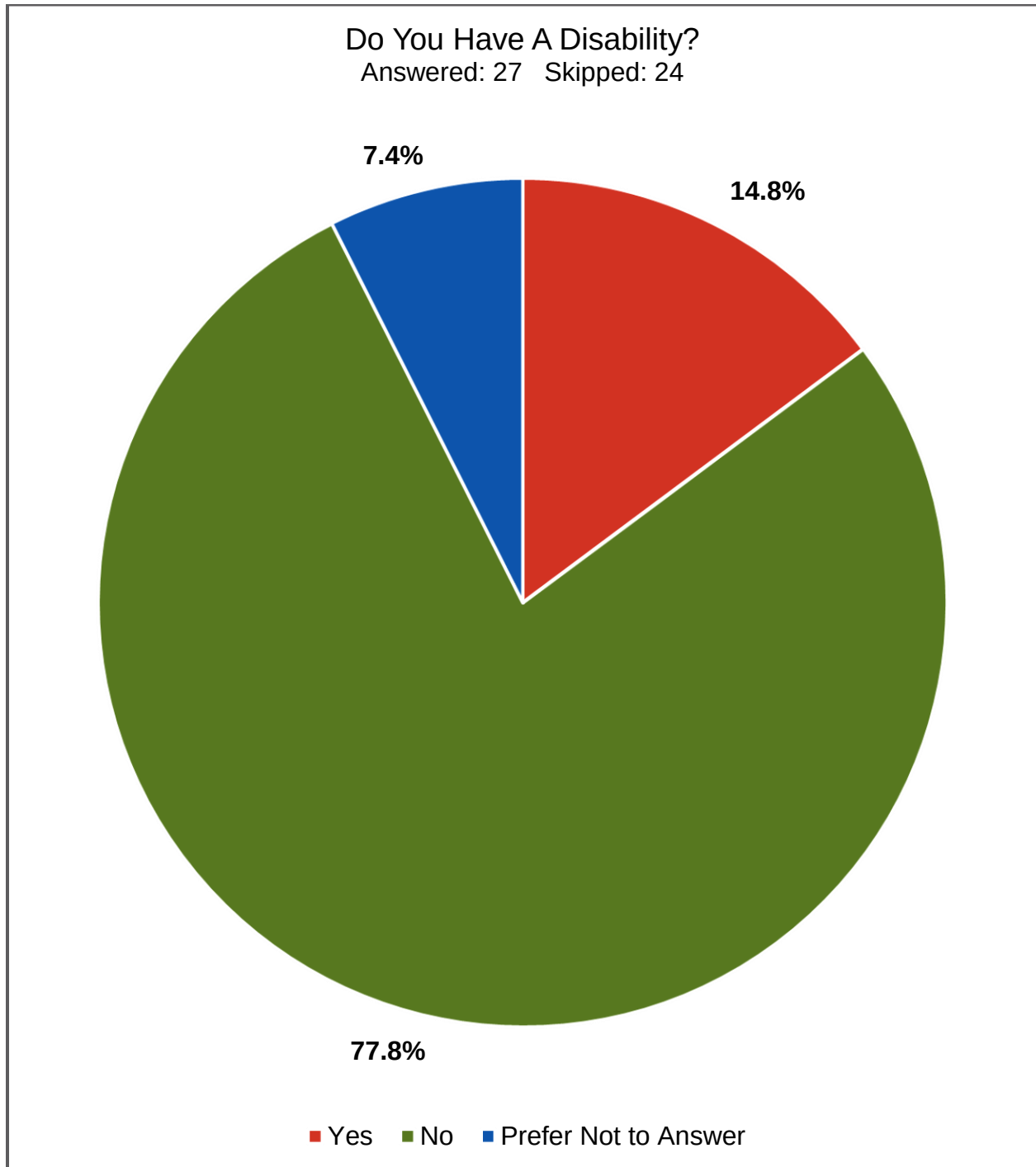
To learn more about who participated, the survey included several optional demographic questions. The broader goals of the Wake Forest Transit Plan engagement process were to engage 1 percent (1%) of residents in the study area, to match demographic representation in the surveys within 5 percent (5%) of relevant demographic categories.

Zip Codes



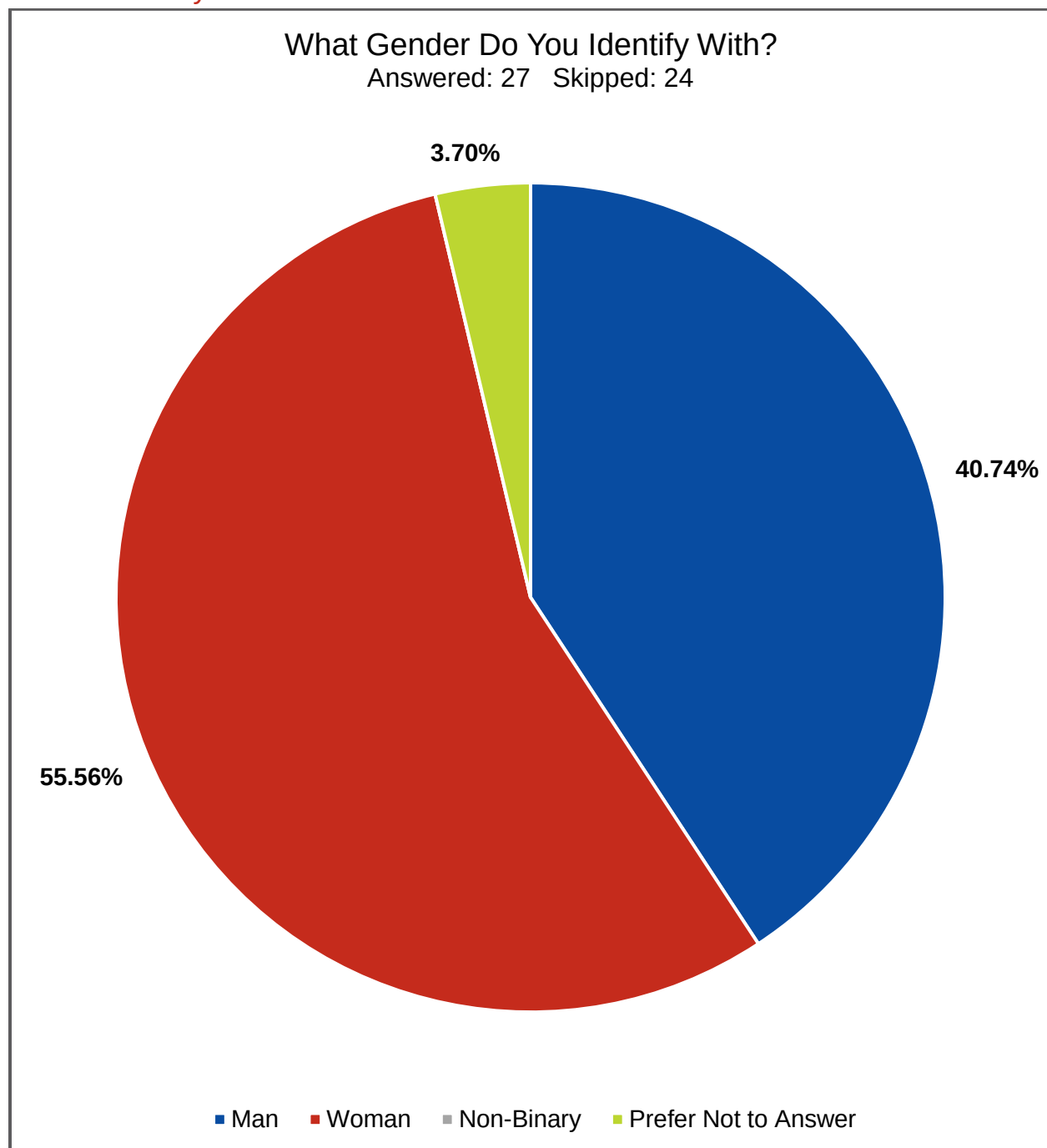
While less than half of survey respondents indicated their zip code, 11 of the of the 23 respondents who answered this question resided in a single zip code, 27587. This was followed by 7 residents who resided in 27614. Additional residents resided in the 27596, 27591, 27606, and 27615 zip codes.

Disability



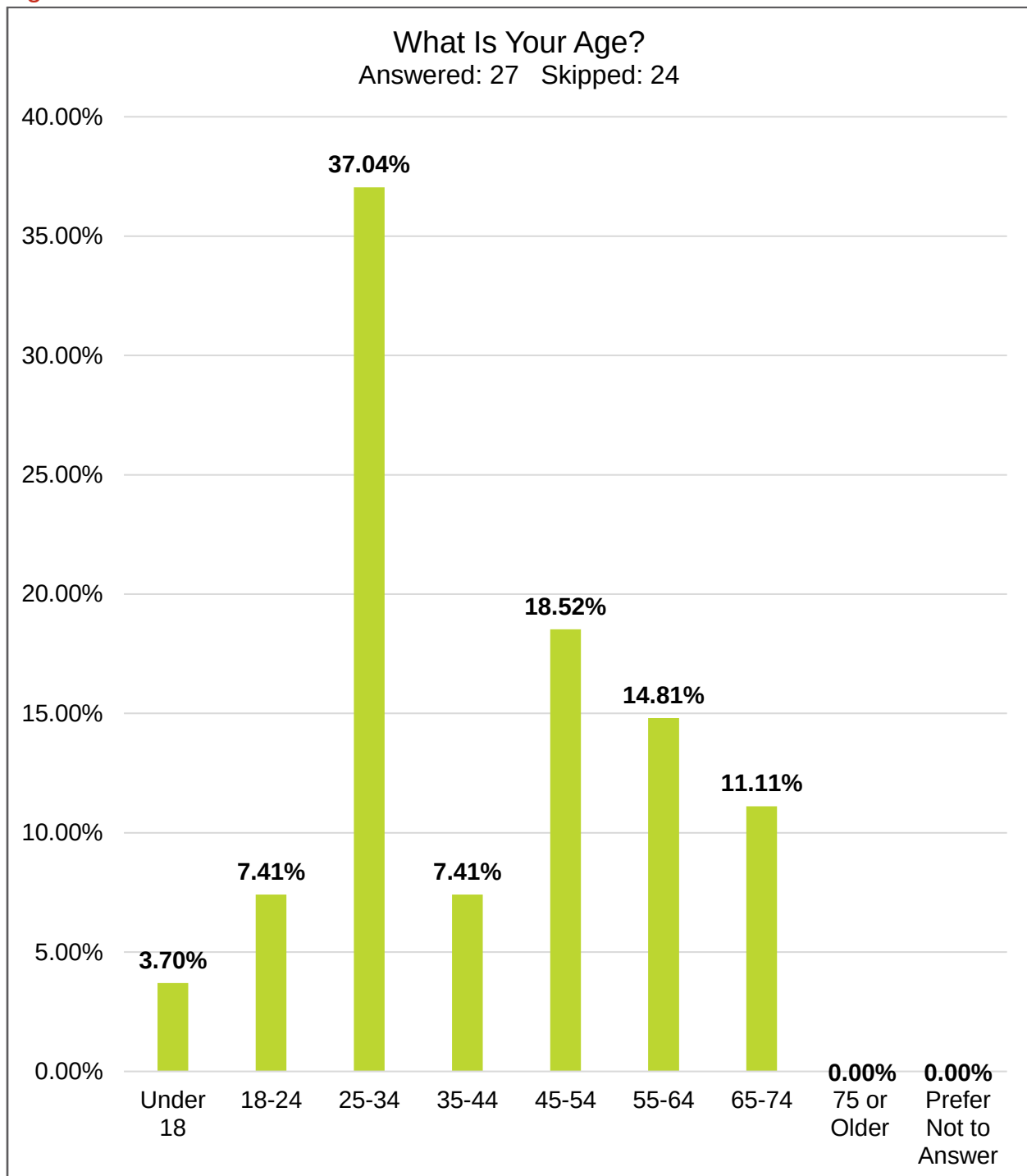
Nearly 15 percent (14.8%) of question respondents reported having a disability, while 77.8% stated they do not have a disability and 7.4% indicated that they preferred not to answer the question.

Gender Identity



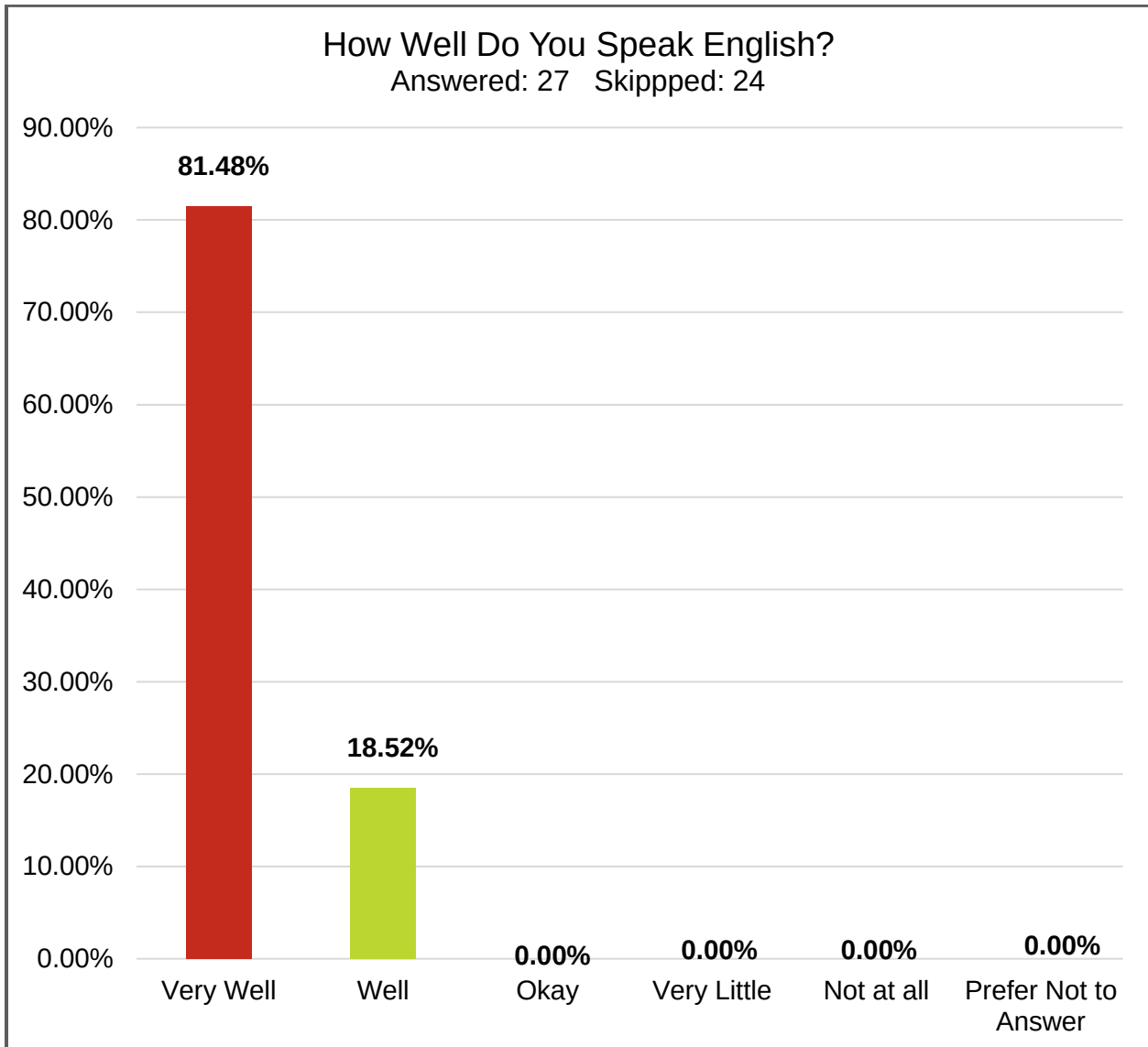
A slight majority of question respondents identified as women at 55.6%, while 40.7% identified as men and 3.7% chose not to offer their gender identity. Although it was provided as an option, non-binary was not selected as the preferred identity among any survey respondents.

Age



The largest proportion of question respondents, 37.0%, are aged between 25 and 34 years. Eleven percent (11.1%) report being younger than 25 years old or between 65 and 74 years old. Nearly 19 percent (18.5%) are between 45 and 54 years old and 14.8% are between 55 and 64 years old. Zero respondents indicated that they were 75 years or older.

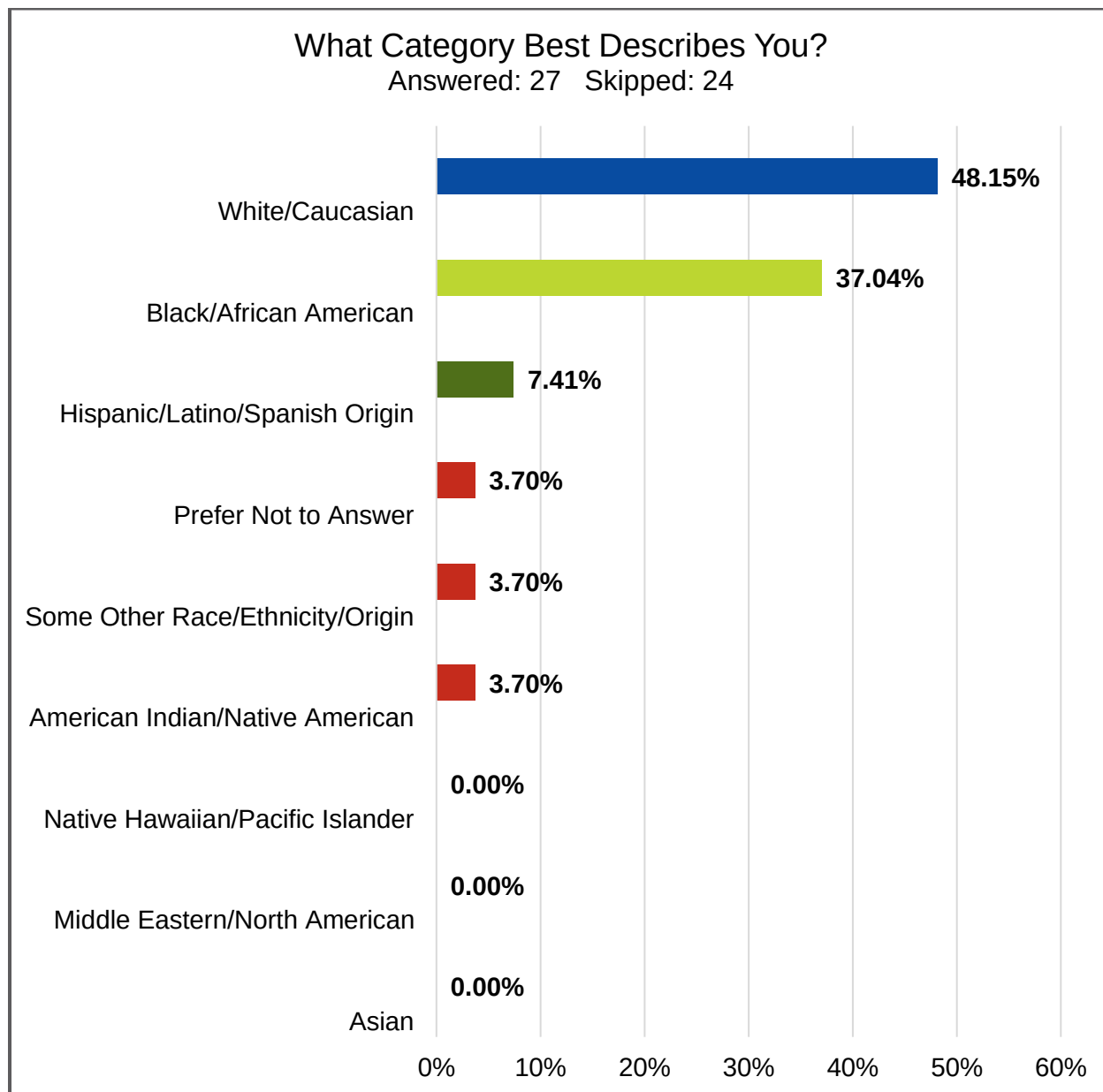
Language Proficiency and Preference



All question respondents indicated that they speak English either very well (81.5%) or well (18.5%). Zero respondents stated that they speak English 'okay,' very little, or not at all.

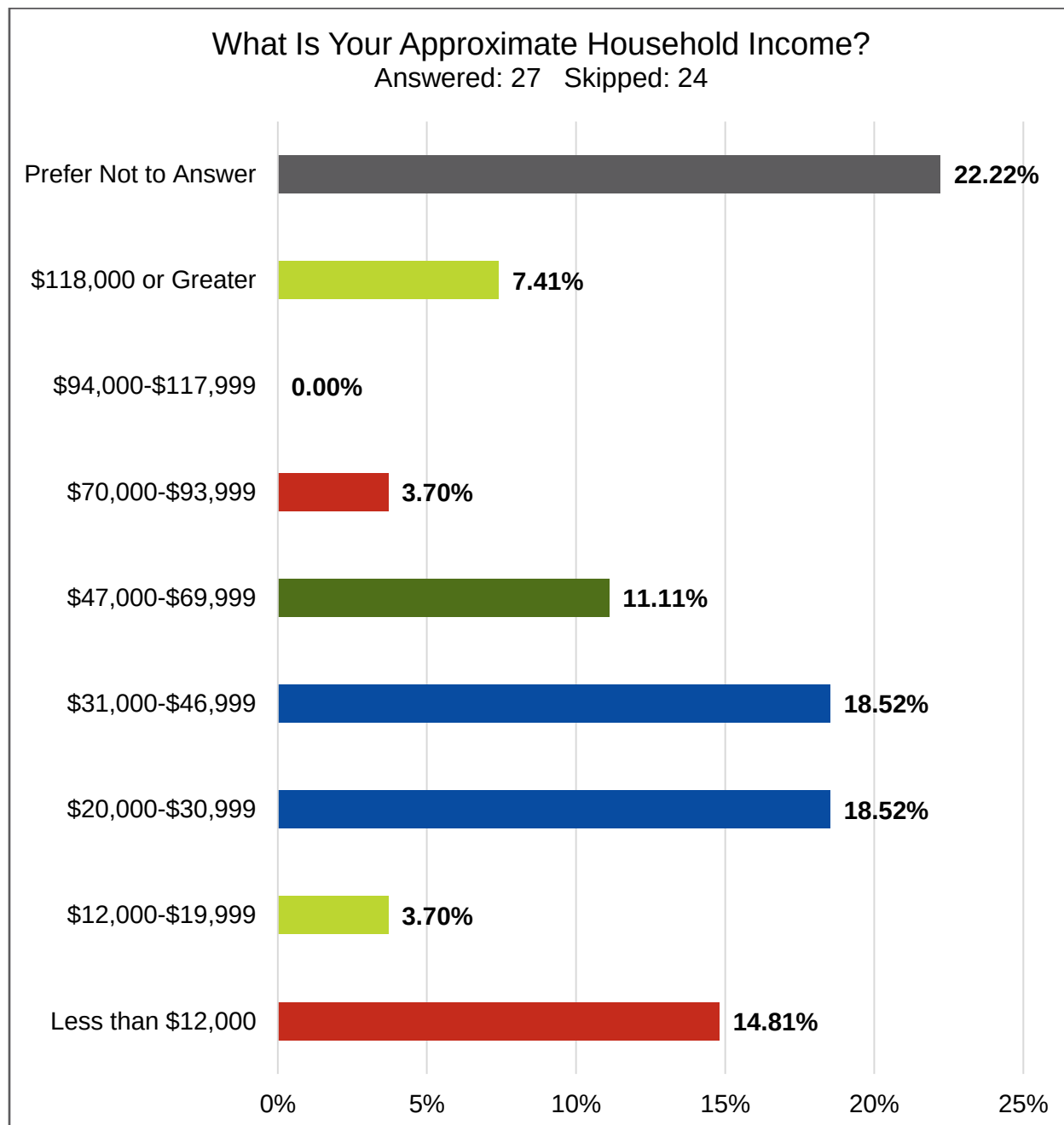
Of respondents offering what language they primarily speak at home the majority speak English (89.4%). Two respondents stated that their preferred language at home is Spanish.

Racial/Ethnic Identity



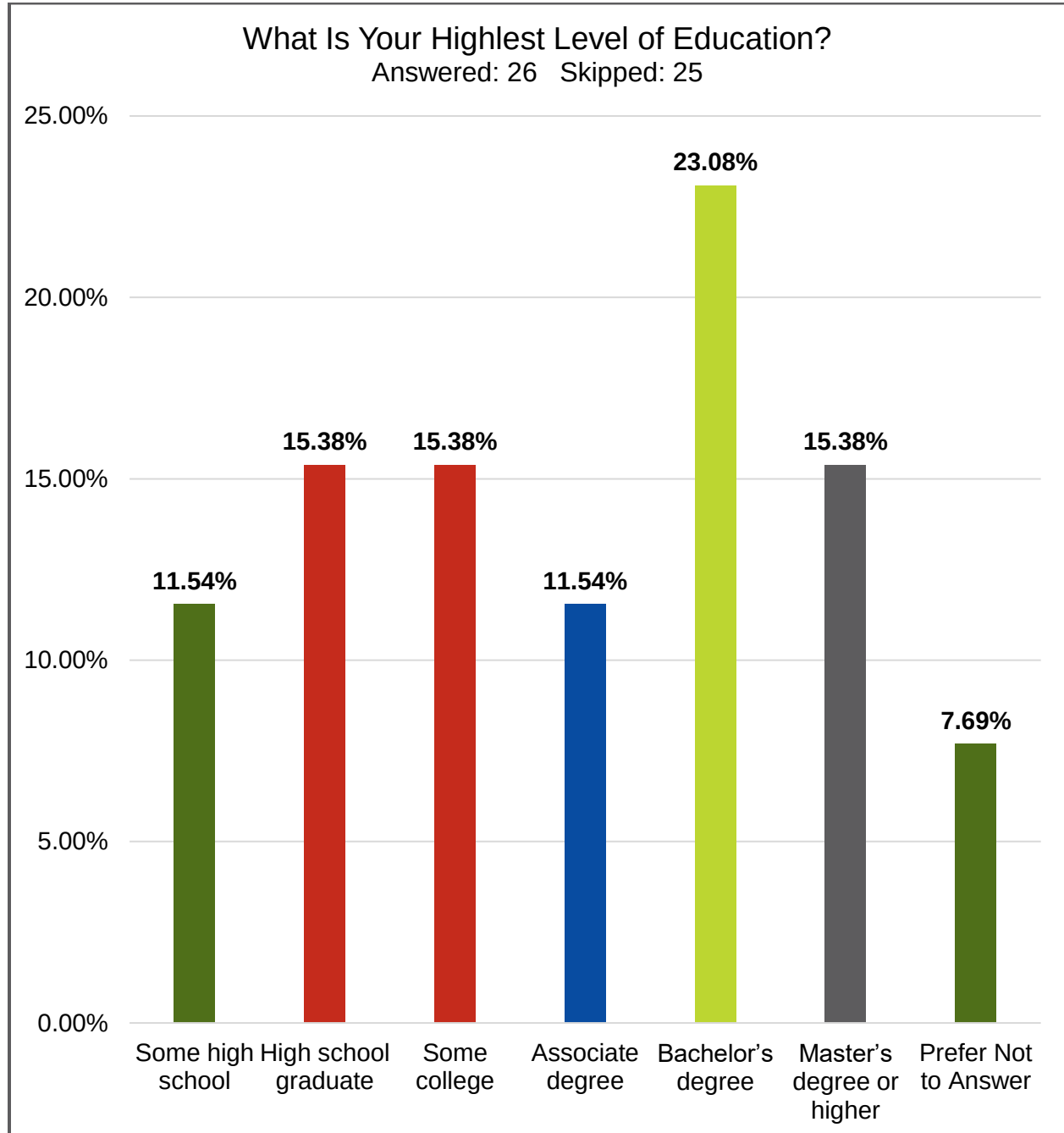
Most question respondents racially identify as white/Caucasian, 48.2% and/or Black/African American (37.0%). Slightly over 7% (7.4%) identify as Hispanic, Latino, or of Spanish origin. Few or no persons identifying as American Indian/Alaskan Native (n=1), Asian (n=0), Middle Eastern (n=0), or Native Hawaiian/Pacific Islander (n=0) were represented in the survey sample. Over 3% (3.7%) opted out of providing their racial identity.

Household Income



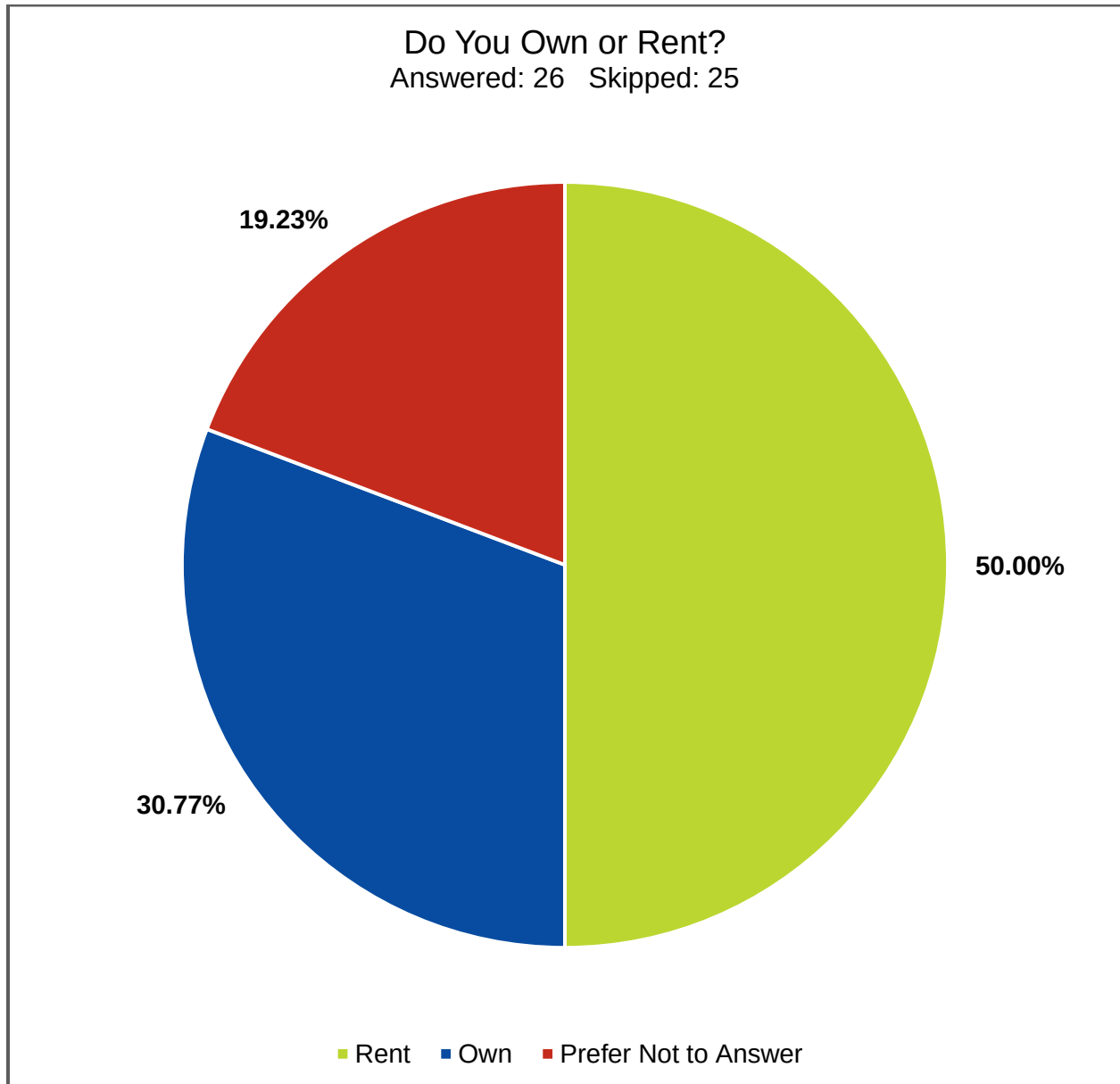
Nearly 19% (18.5%) of question respondents reported a household income between \$20,000 and \$30,999 per year. The same percentage (18.5%) of respondents reported a household income between \$31,000 and \$46,999 per year. Nearly 4 percent (3.7%) reported earning \$12,000 and \$19,999, as well as, \$70,000 and \$93,999. Less than 11 percent (11.1%) earn between \$47,000 and \$69,999, and 7.4% earn \$118,000 or more in annual income. Slightly over 22 percent (22.2%) of respondents declined to offer their income information.

Education



Slightly over 23% (23.1%) of questions respondents had at least a bachelor's degree, with 15.4% having a master's degree or higher. Twelve percent (11.5%) have an associate's degree, 15.4% completed some college, 15.4% have a high school diploma, and 11.5% report completing some high school. Two respondents declined to report their educational attainment.

Own or Rent



Fifty percent (50%) of survey respondents are renters. Nearly 31% (30.8%) of respondents are homeowners. Nineteen percent (19.2%) did not provide their residential status.

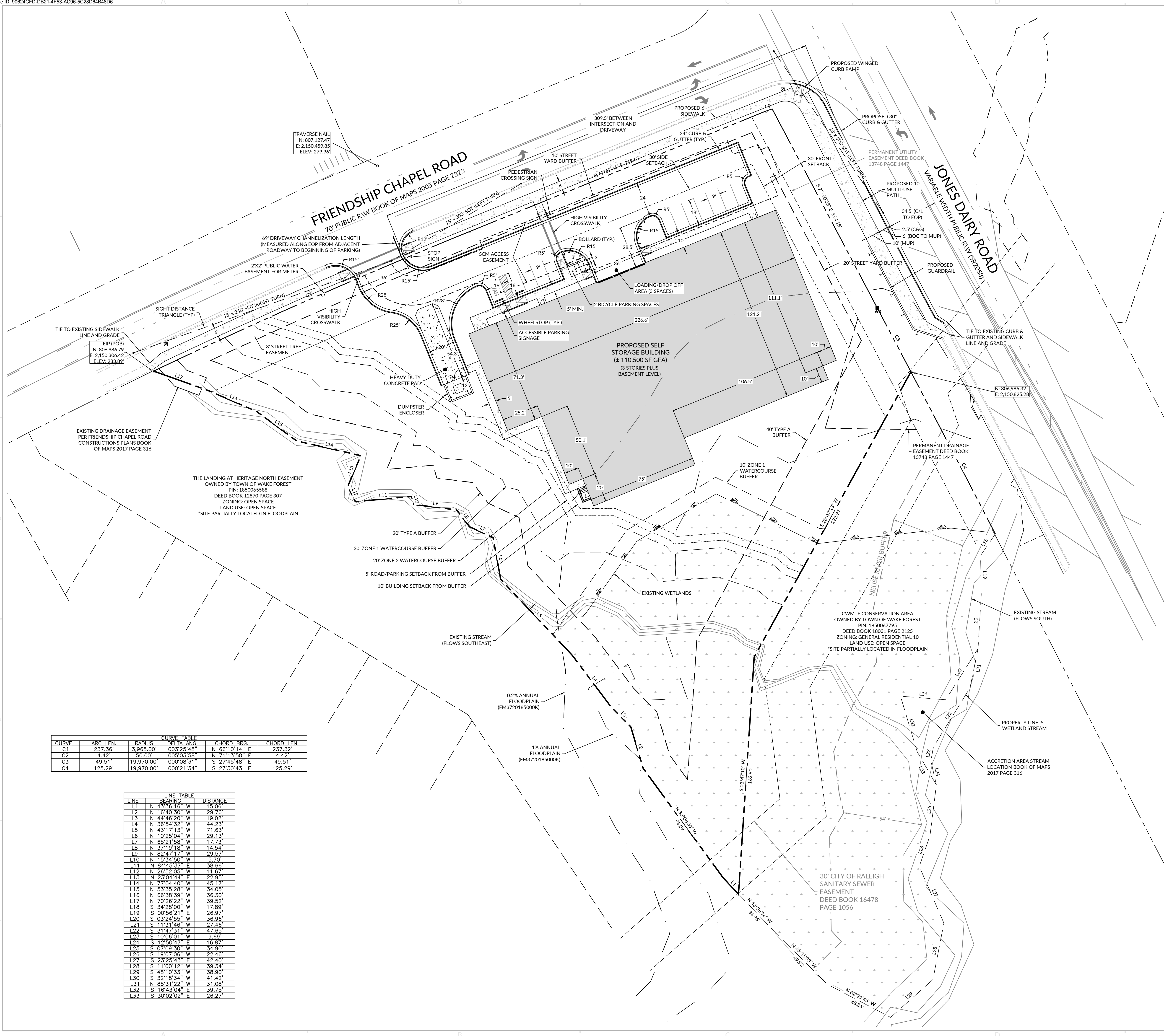
Recommendations for Future Outreach

This survey met demographic representation goals for populations living below the poverty level and minority populations. A total of 5% of the population of Wake Forest lives below the poverty level. Among survey respondents, 19% indicated an annual household income of less than \$20,000 per year. Minorities make up 28.3% of the population of Wake Forest. Over 40% of survey respondents identified as a member of a racial minority. This survey met demographic representation goals for populations living below the poverty level and minority populations.

Regarding Limited English Proficiency populations, although 2.3% of the population of Wake Forest speak Spanish as a primary language, the survey almost exclusively reached English-speaking populations, with 81.5% of respondents speaking English very well and 18.5% speaking English well.

Future outreach should consider increasing advertising to Spanish-language media, ensuring access to survey materials in Spanish, and translating advertising materials (flyers, business cards, and other materials) into Spanish. Additionally, Wake Forest could consider partnering with community organizations to increase feedback from community members who primarily speak Spanish.

Lastly, the project team may wish to increase advertising in the least represented zip codes.



CURVE TABLE					
CURVE	ARC LEN.	RADIUS	DELTA ANG.	CHORD BRG.	CHORD LEN.
C1	237.36	3,965.00'	003°25'48"	N 66°10'14" E	237.32
C2	4.42'	50.00'	005°03'58"	N 71°13'50" E	4.42'
C3	49.51'	19,970.00'	000°08'31"	S 27°45'48" E	49.51'
C4	125.29'	19,970.00'	000°21'34"	S 27°30'43" E	125.29'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 43°36'16" W	15.06'
L2	N 16°40'30" W	28.76'
L3	N 44°46'20" W	19.02'
L4	N 36°54'32" W	44.23'
L5	N 43°17'13" W	71.63'
L6	N 10°25'04" W	29.13'
L7	N 65°21'58" W	17.73'
L8	N 37°19'18" W	14.54'
L9	N 82°47'17" W	29.57'
L10	N 15°34'50" W	5.70'
L11	N 84°45'37" E	38.66'
L12	N 26°52'03" W	11.67'
L13	N 23°04'44" E	22.85'
L14	N 77°04'40" W	45.17'
L15	N 53°35'28" W	34.05'
L16	N 66°38'39" W	36.30'
L17	N 70°26'22" W	39.52'
L18	S 34°28'00" W	17.89'
L19	S 00°56'21" E	26.87'
L20	S 03°24'55" W	36.96'
L21	S 11°31'46" W	27.46'
L22	S 31°47'31" W	47.65'
L23	S 10°06'01" W	9.69'
L24	S 12°50'47" E	16.87'
L25	S 07°09'30" W	34.90'
L26	S 19°07'06" W	22.46'
L27	S 23°25'43" E	42.40'
L28	S 11°00'12" W	39.34'
L29	S 48°10'33" W	38.90'
L30	S 32°18'34" W	41.42'
L31	N 85°31'22" W	31.08'
L32	S 16°43'04" E	39.75'
L33	S 30°02'02" E	26.27'

- SITE PLAN NOTES

1.

PER MAP 4-6 | FUTURE GREENWAY NETWORK, LOCATED IN THE TOWN OF WAKE FOREST'S COMPREHENSIVE TRANSPORTATION PLAN (CTP), GREENWAY TRAILS ARE PROPOSED ON THE TOWN-OWNED PROPERTIES ADJACENT TO THE SITE. THE TRAIL CONFIGURATION HAS NOT YET BEEN ESTABLISHED, BUT IT IS ANTICIPATED THAT THE GREENWAY TRAILS WILL RUN PARALLEL TO THE SOUTHEASTERN AND SOUTHWESTERN PROPERTY LINES. PLEASE REFER TO CHAPTER 4 OF THE CTP FOR MORE INFORMATION REGARDING THESE FUTURE GREENWAY TRAILS.

2.

APPLICABLE DIMENSIONS SHOWN HEREIN ARE MEASURED TO THE FACE OF CURB.

SITE DATA TABLE	
DEVELOPMENT NAME	4RIVERS - WAKE FOREST
PROJECT NAME	SELF STORAGE
TOWN OF WAKE FOREST PROJ. NO.	RZ-23-01
SITE ADDRESS	300 JONES DAIRY ROAD WAKE FOREST, NC
DEVELOPER	4RIVERS PROPERTY GROUP
OWNER	FRANKLIN VILLAGE LLC
WAKE COUNTY PARCEL NO. & PIN	0325088 & 1850066925
CURRENT ZONING	GR10
PROPOSED ZONING	HB-CD
OVERLAY DISTRICT	DR. CALVIN JONES HIGHWAY (PARTIAL)
GROWTH STRATEGY DESIGNATION	N/A
PARCEL ACREAGE	2.64 AC
NUMBER OF LOTS/LOTS PER PHASE	1
RIGHT-OF-WAY ACREAGE	N/A
EXISTING USE	VACANT
PROPOSED USE	STORAGE - SELF SERVICE
PROPOSED DENUDED AREA	± 1.71 AC
REQUIRED/PROPOSED OPEN & PARK SPACE	N/A (NOT REQUIRED)
EXISTING IMPERVIOUS COVERAGE:	±0 AC
PROPOSED IMPERVIOUS COVERAGE:	
TOTAL	± 42,000 SF (0.96 AC) 36% LOT COVERAGE
BUILDING	± 27,650 SF (0.64 AC)
PAVEMENT	± 12,350 SF (0.28 AC)
SIDEWALK	± 2,000 SF (0.05 AC)
MINIMUM BUILDING SETBACKS:	
FRONT	30 FT
SIDE	30 FT
REAR	30 FT
MINIMUM LOT WIDTH:	
FRONT	150 FT
PROVIDED FRONTAGE	450 FT
BUILDING INFORMATION:	
PROPOSED NUMBER OF BUILDINGS	1
PROPOSED BUILDING SF	± 110,500 SF (INCLUDING ± 1,000 SF OF LOBBY)
MAXIMUM BUILDING HEIGHT	3 STORIES (PLUS BASEMENT LEVEL)
PROPOSED BUILDING HEIGHT	3 STORIES (PLUS BASEMENT LEVEL)
PARKING:	
MINIMUM REQUIRED PARKING	11 SPACES (PER PROPOSED ZONING CONDITION)
PROVIDED PARKING	12 SPACES (INCLUDING 1 ADA SPACE)
BIKE PARKING:	
MINIMUM REQUIRED PARKING	2 SPACES (2 SPACES PER 50 PARKING SPACES)
PROVIDED BIKE PARKING	2 SPACES
LOADING SPACES:	
MINIMUM REQUIRED LOADING SPACES	3
PROVIDED LOADING SPACES	3

RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD

DATE _____

APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS

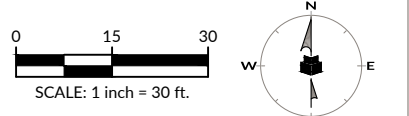
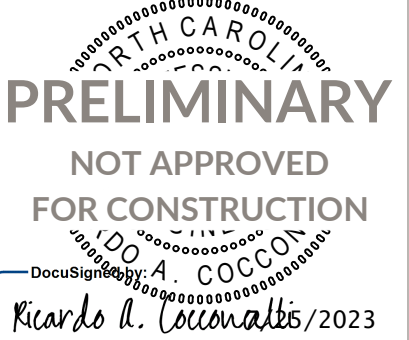
DATE _____



1200 EAST MOREHEAD STREET,
SUITE 200
CHARLOTTE, NC 28204

SITE MASTER PLAN
4RIVERS - WAKE FOREST
SELF STORAGE

300 JONES DAIRY ROAD | WAKE FOREST, NC | WAKE COUNTY

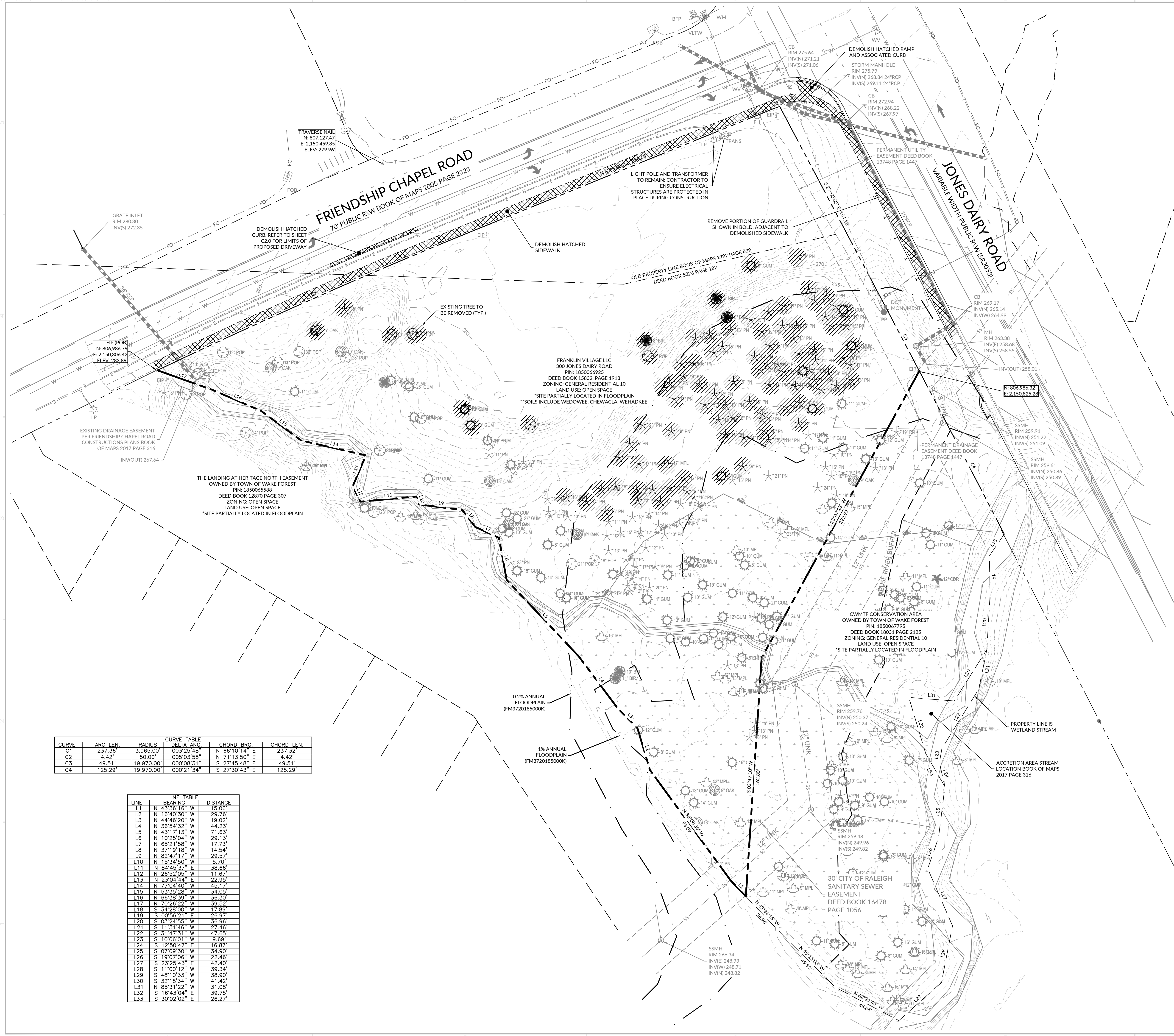


INITIAL PLAN DATE: 01/20/2023
REVISIONS:
1 - 03/10/2023
TOWN OF WAKE FOREST COMMENTS
2 - 04/21/2023
TOWN OF WAKE FOREST COMMENTS
3 - 06/06/2023
TOWN OF WAKE FOREST COMMENTS
4 - 07/24/2023
TOWN OF WAKE FOREST COMMENTS

TOWNE PROJ. NUMBER RZ-23-01
WR JOB NUMBER 09221052
DRN: WR DGN: WR CKD: WR

OVERALL SITE PLAN

C2.0



CURVE TABLE					
CURVE	ARC LEN.	RADIUS	DELTA ANG.	CHORD BRG.	CHORD LEN.
C1	237.36	3,965.00'	003°25'48"	N 66°10'14" E	237.32
C2	4.42'	50.00'	005°03'58"	N 71°13'50" E	4.42'
C3	49.51'	19,970.00'	000°08'31"	S 27°45'48" E	49.51'
C4	125.29'	19,970.00'	000°21'34"	S 27°30'43" E	125.29'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 43°36'16" W	15.06'
L2	N 16°40'30" W	28.76'
L3	N 44°46'20" W	19.02'
L4	N 36°54'32" W	44.23'
L5	N 43°17'13" W	71.63'
L6	N 10°25'04" W	29.13'
L7	N 65°21'58" W	17.73'
L8	N 37°19'18" W	14.54'
L9	N 82°47'17" W	29.57'
L10	N 15°34'50" W	5.70'
L11	N 84°45'37" E	38.66'
L12	N 26°52'05" W	11.67'
L13	N 23°04'44" E	22.85'
L14	N 77°04'40" W	45.17'
L15	N 53°35'28" W	34.05'
L16	N 66°38'59" W	36.30'
L17	N 70°26'22" W	39.52'
L18	S 34°28'00" W	17.89'
L19	S 00°56'21" E	26.87'
L20	S 03°24'55" W	36.96'
L21	S 11°31'46" W	27.46'
L22	S 31°47'31" W	47.65'
L23	S 10°06'01" W	9.69'
L24	S 12°50'47" E	16.87'
L25	S 07°09'30" W	34.90'
L26	S 19°07'06" W	22.46'
L27	S 23°25'43" E	42.40'
L28	S 11°00'12" W	39.34'
L29	S 48°10'33" W	38.90'
L30	S 32°18'34" W	41.42'
L31	N 85°31'22" W	31.08'
L32	S 16°43'04" E	39.75'
L33	S 30°02'02" E	26.27'

TREE DEMOLITION SUMMARY TABLE					
8" BIR	11" PN	14" PN	15" PN	17" PN	
8" BIR	11" PN	14" PN	15" PN	17" PN	
8" BIR	12" GUM	14" PN	15" PN	17" PN	
8" GUM	12" PN	14" PN	15" PN	17" PN	
8" GUM	12" PN	14" PN	16" PN	17" PN	
8" GUM	12" PN	14" PN	16" PN	17" PN	
8" GUM	12" PN	14" PN	16" PN	17" PN	
8" POP	12" PN	14" PN	16" PN	17" PN	
8" POP	12" PN	15" PN	16" PN	17" PN	
9" GUM	13" PN	15" PN	16" PN	17" PN	
9" PN	13" PN	15" PN	16" PN	18" PN	
10" GUM	13" PN	15" PN	16" PN	18" PN	
10" GUM	13" PN	15" PN	16" PN	18" PN	
10" GUM	13" PN	15" PN	16" PN	18" PN	
10" GUM	13" PN	15" PN	16" PN	18" PN	
10" PN	13" PN	15" PN	16" PN	18" PN	
10" PN	13" PN	15" PN	16" PN	19" PN	
10" POP	13" PN	15" PN	16" PN	19" PN	
10" POP	13" PN	15" PN	17" MPL	20" PN *	
11" PN	14" PN	15" PN	17" PN	20" PN *	
11" PN	14" PN	15" PN	17" PN	23" PN *	
11" PN	14" PN	15" PN	17" PN	25" OAK *	

NOTE: ALL TREES SHOWN IN THE ABOVE TABLE ARE CANOPY TREES. NO 8" UNDERSTORY TREES ARE PROPOSED TO BE REMOVED WITH THIS PROJECT. PER UDO SECTION 8.4.3.A.1, ONLY CANOPY TREES WITH A 20" DBH OR GREATER ARE CONSIDERED SPECIMEN TREES. TREES MARKED WITH AN ASTERISK ARE CONSIDERED SPECIMEN TREES THAT ARE TO BE REMOVED WITH THIS PLAN. REFER TO SHEET L2.0 FOR INFORMATION REGARDING REPLACEMENT OF SPECIMEN TREES.

SITE MASTER PLAN
4RIVERS - WAKE FOREST
SELF STORAGE



INITIAL PLAN DATE: 01/20/2023
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DATE _____

TOWNE PROJ. NUMBER RZ-23-01
WR JOB NUMBER 09221052
DRN: WR DGN: WR CKD: WR

OVERALL
DEMOLITION PLAN

C1.1



SITE MASTER PLAN

4RIVERS - WAKE FOREST

SELF STORAGE

SITE MASTER PLAN

RZ-23-01

SURVEY BENCHMARK

BENCHMARK IS LOCAL TO SITE.
HORIZONTAL DATUM BASED ON NC GRID NAD 83 (2011).
VERTICAL DATUM BASED ON NAVD 88.

SITE DATA TABLE

DEVELOPMENT NAME	4RIVERS - WAKE FOREST
PROJECT NAME	SELF STORAGE
TOWN OF WAKE FOREST PROJECT NO.	RZ-23-01
SITE ADDRESS	300 JONES DAIRY ROAD, WAKE FOREST, NC
OWNER/DEVELOPER	4 RIVERS PROPERTY GROUP
WAKE COUNTY PARCEL NO. & PIN	0325088 & 1850066925
CURRENT ZONING	GR10
PROPOSED ZONING	HB-CD
GROWTH STRATEGY DESIGNATION	N/A
OVERLAY DISTRICT	DR. CALVIN JONES HIGHWAY (PARTIAL)
WATER SUPPLY WATERSHED PROTECTION OVERLAY	N/A (NOT LOCATED IN A DESIGNATED OVERLAY DISTRICT)
SPECIAL FLOOD HAZARD AREA DESIGNATION	ZONE AE (FEMA FIRM 3720185000K)
PARCEL ACREAGE	2.64 AC
RIGHT-OF-WAY ACREAGE	N/A
EXISTING USE	VACANT
PROPOSED USE	STORAGE - SELF SERVICE
EXISTING LOT IMPERVIOUS COVERAGE	± 0.00 AC (0%)
PROPOSED LOT IMPERVIOUS COVERAGE	± 0.96 AC (36%)
PROPOSED DENUDED AREA	± 1.71 AC
MINIMUM BUILDING SETBACKS:	
FRONT	30 FT
SIDE	30 FT
REAR	30 FT
MINIMUM LOT WIDTH:	
FRONT	150 FT
PROVIDED FRONTAGE	450 FT
BUILDING INFORMATION:	
PROPOSED NUMBER OF BUILDINGS	1
PROPOSED BUILDING SF	~110,500 SF (INCLUDING ~1,000 SF OF LOBBY)
MAXIMUM BUILDING HEIGHT	3 STORIES (PLUS BASEMENT LEVEL)
PROPOSED BUILDING HEIGHT	3 STORIES (PLUS BASEMENT LEVEL)
PARKING:	
REQUIRED PARKING	11 SPACES (PER PROPOSED ZONING CONDITION)
PROVIDED PARKING	12 SPACES (INCLUDING 1 ADA VAN SPACE)
BIKE PARKING:	
MINIMUM REQUIRED PARKING	2 SPACES (REFER TO SHEET C2.0)
PROPOSED PARKING	2 SPACES

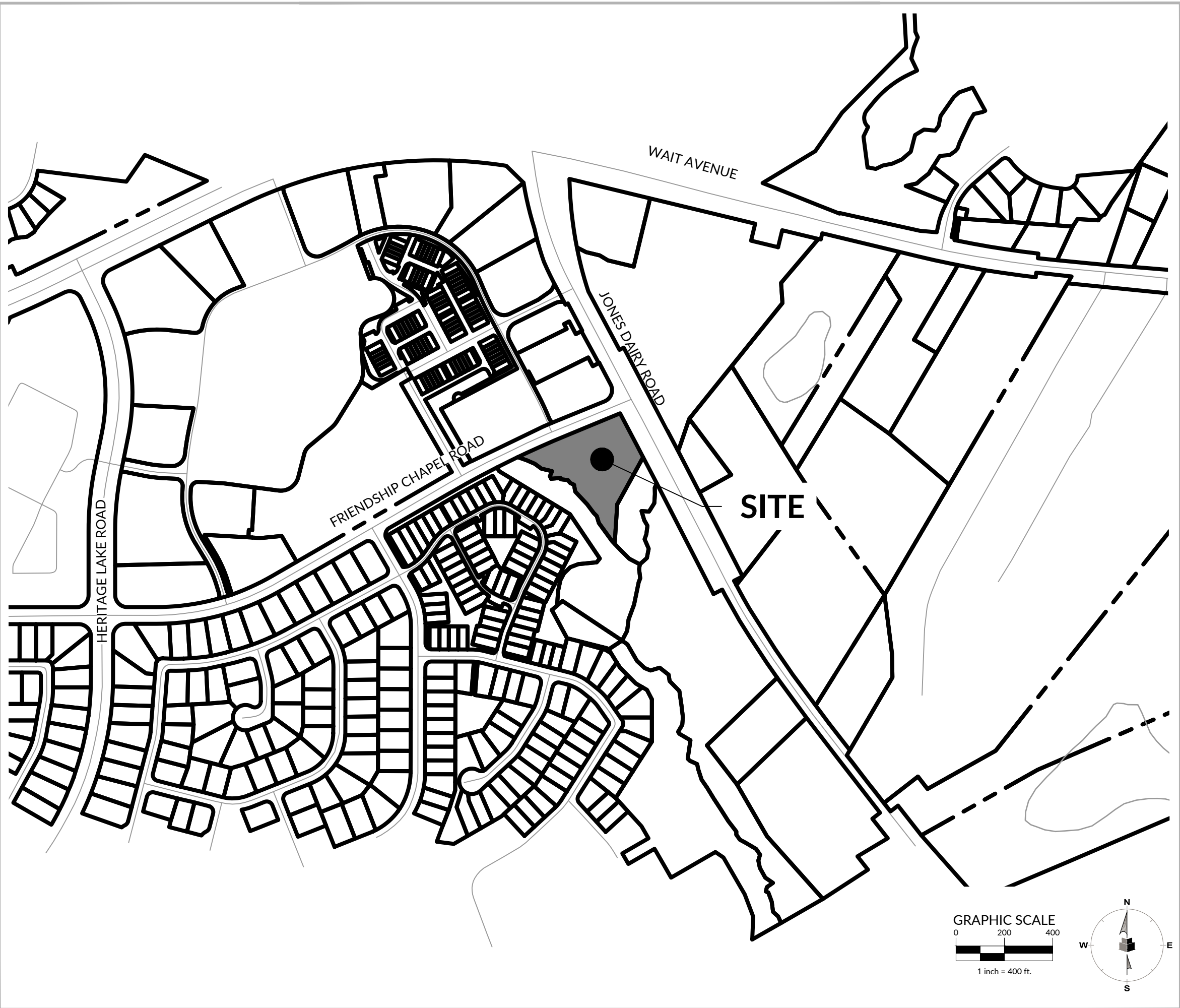
INFRASTRUCTURE DATA TABLE

PUBLIC R/W [LF]	NONE
PUBLIC WATER MAIN [LF]	0
PUBLIC SEWER MAIN [LF]	0
PUBLIC STORM DRAINAGE [LF]	NONE (ALL PROPOSED STORM IS PRIVATE)
PUBLIC GREENWAY [LF]	0

300 JONES DAIRY ROAD | WAKE FOREST, NC

CONDITIONAL DISTRICT REZONING:
1ST SUBMITTAL: JANUARY 20, 2023
2ND SUBMITTAL: MARCH 10, 2023
3RD SUBMITTAL: APRIL 21, 2023
4TH SUBMITTAL: JUNE 6, 2023
FINAL REZONING PLANS: JULY 24, 2023

VICINITY MAP



INDEX OF SHEETS

NUMBER	TITLE
C0.0	COVER
C1.0	OVERALL EXISTING CONDITIONS PLAN
C1.1	OVERALL DEMOLITION PLAN
C2.0	OVERALL SITE PLAN
C3.0	OVERALL UTILITIES PLAN
C4.0	OVERALL GRADING AND DRAINAGE PLAN
L1.0	OVERALL LANDSCAPE PLAN
L2.0	LANDSCAPE DETAILS
SL1.0	OVERALL LIGHTING PLAN
TP1.0	TRUCK PATH - SINGLE UNIT TRUCK
TP2.0	TRUCK PATH - GARBAGE TRUCK
TP3.0	TRUCK PATH - FIRE TRUCK

SITE LEGEND

EXISTING		PROPOSED
	FIRE HYDRANT	
	POWER POLE	
	IRON PIPE SET	
	IRON PIPE FOUND	
	CALCULATED POINT	
	WATER VALVE	
	CATCH BASIN	
	SANITARY MANHOLE	
	BLOW OFF VALVE	
	PROJECT BOUNDARY LINE	
	ADJACENT PROPERTY LINE	
	RIGHT OF WAY	
	OVERHEAD ELECTRIC LINE	
	SANITARY SEWER LINE	
	STORM DRAINAGE LINE	
	WATER LINE	
	MAJOR CONTOUR LINE	
	MINOR CONTOUR LINE	

PROPOSED ZONING CONDITIONS

NOTE: REFER TO ZONING CONDITION MEMO, SUBMITTED UNDER A SEPARATE COVER, FOR MORE INFORMATION REGARDING ZONING CONDITIONS PROPOSED WITH THIS SITE MASTER PLAN.

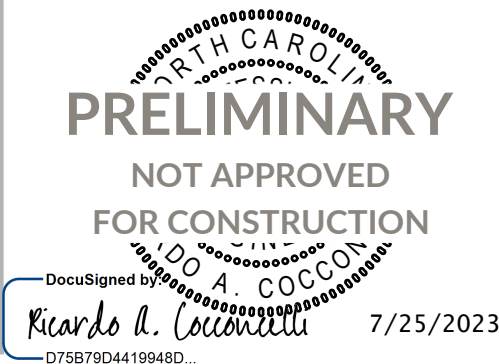
- THE CORRESPONDING SITE MASTER PLAN IS A CONDITION OF THE REZONING. AMENDMENTS OF THE SITE MASTER PLAN SHALL REQUIRE A REZONING AMENDMENT UNLESS THE ADMINISTRATOR FINDS THE MODIFICATION TO BE MINOR AND IN KEEPING WITH THE SPIRIT AND INTENT OF THE ADOPTED SITE MASTER PLAN.
- THE LANDOWNER SHALL COMPLETE ALL IMPROVEMENTS TO THE ADJACENT ROADWAYS AND ROADWAY FRONTAGES AS SHOWN ON THE CORRESPONDING SITE MASTER PLAN AND AS IDENTIFIED IN THE TOWN OF WAKE FOREST COMPREHENSIVE TRANSPORTATION PLAN. SUCH IMPROVEMENTS SHALL BE COMPLETED FROM THE CENTER OF THE ROADWAY TO THE SITE PROPERTY LINE, OR, WHERE APPROVED BY THE TOWN'S PLANNING AND ENGINEERING DEPARTMENTS, THE LANDOWNER MAY SUBMIT A FEE TO THE TOWN IN LIEU OF COMPLETING ALL OR PART OF THE IMPROVEMENTS.
- THE OFF-STREET PARKING REQUIREMENTS IN UDO SECTION 9.4.B SHALL BE MODIFIED TO ALLOW A MINIMUM OF ELEVEN (11) OFF-STREET PARKING SPACES.
- REQUIRED OFF-STREET LOADING SPACES ARE EXEMPT FROM THE STANDARDS OF UDO SECTIONS 9.4.5.C(1), (2), (3), AND (5).
- BUILDING ENTRANCES ADJACENT TO OFF-STREET LOADING SPACES SHALL PROVIDE ACCESS TO THE BUILDING THROUGH SLIDING GLASS DOORS.
- THE DEVELOPMENT SHALL BE EXEMPT FROM THE PEDESTRIAN/BICYCLE ACCESSWAY REQUIREMENTS IN UDO SECTION 6.5.3.A.

RECOMMENDATION FOR APPROVAL
BY THE WAKE FOREST
PLANNING BOARD
DATE _____

APPROVAL BY THE
WAKE FOREST BOARD
OF COMMISSIONERS
DATE _____

CONTACT LIST:

LANDSCAPE ARCHITECT Daniel Whatley, PLA WithersRavenel 137 S Wilmington Street, Suite 200 Raleigh, NC 27601 919-535-5200 dwhatley@withersravenel.com	CIVIL ENGINEER Ricardo Coconcelli, PE WithersRavenel 115 MacKanan Drive Cary, NC 27511 919-469-3340 rcoconcelli@withersravenel.com	DEVELOPER Hunter Dawkins 4 Rivers Property Group 1200 E Morehead St, Suite 280, Charlotte, NC 28204 704-281-8959 jake@prestondew.com	ARCHITECT Alvah Davis McMillan Pazdan Smith Architecture 864-398-5268 adavis@mcmillanpazdansmith.com
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PREPARED BY:

WithersRavenel
115 MacKanan Drive | Cary, NC 27511
License #: F-1479 | t: 919.469.3340 | www.withersravenel.com



DEVELOPER:

4RIVERS PROPERTY GROUP

1200 EAST MOREHEAD STREET, SUITE 280
CHARLOTTE, NC 28204
PHONE #: 704-281-8959
ATTENTION: HUNTER DAWKINS



SITE MASTER PLAN
4RIVERS - WAKE FOREST
SELF STORAGE
SITE MASTER PLAN
WR PROJECT NO.09221052
TOWN OF WAKE FOREST
MUNI PRO NO-RZ-23-01
01/20/2023